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FAA-1999-6673

**DRAFT REGULATORY EVALUATION,  
INITIAL REGULATORY FLEXIBILITY  
DETERMINATION, TRADE IMPACT ASSESSMENT,  
AND UNFUNDED MANDATES DETERMINATION**

FAA-1999-6673-2

**NOTICE OF PROPOSED RULEMAKING**

**CERTIFICATION OF SCREENING COMPANIES  
(14 CFR 108, 109, 111, 129, and 191)**

**OFFICE OF AVIATION POLICY AND PLANS  
OPERATIONS REGULATORY ANALYSIS BRANCH  
APO-310**

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**April 1999**

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## Executive Summary

This draft regulatory evaluation examines the costs and benefits of requiring the certification of companies in the business of screening carrier passengers, checked baggage, and cargo at airports. This action is being taken in response to the recommendations of the White House Commission on Aviation Safety and Security and the subsequent requirement from Congress in the Federal Aviation Reauthorization Act of 1996.

This rulemaking has two objectives: to propose procedures for certification of screening companies and to propose requirements to improve screening. The Federal Aviation Administration (FAA) believes that this proposal would improve performance, improve the consistency and quality of screening, and meet the Congressional mandate. The FAA proposes to achieve the regulatory objectives by creating a new part 111 that would contain all requirements for screening companies. The proposal would affect the screening that is done by inspecting persons or property. This proposed rule would not shift responsibility to screening companies, but rather would ensure that those who conduct screening are fully qualified to do so. Screening companies would have primary responsibility for the day-to-day operation of the screening location while carriers would be held accountable for repeated failure to comply with the regulations.

Ten year costs of this proposed rule sum to \$300.02 million (net present value, \$219.22 million). These costs would be borne by the screening companies, part 108 air carriers (also referred to direct air carriers), part 109 carriers (also referred to as indirect air carriers), foreign air carriers, and the FAA. These costs would be more than offset if they avoid a substantial number of fatalities by preventing one Class I Explosion on board an aircraft (an incident that involves the loss of an entire aircraft and a large number of fatalities) in the United States over the next 10 years.

The proposed rule would impose a significant economic impact on a substantial number of small entities. In terms of international trade, the proposed rule would neither impose a competitive trade disadvantage to U.S. air carriers operating domestically nor to foreign air carriers deplaning or enplaning passengers within the United States. In terms of the Unfunded Mandates Act, the proposed rule would not contain any Federal intergovernmental mandates or private sector mandates.

## I. Introduction and Background

Following the crash of TWA 800 on July 17, 1996, the President created the White House Commission on Aviation Safety and Security (the Commission). The Commission issued an Initial Report on September 9, 1996, with 20 specific recommendations for improving security, one of which called for the development of uniform performance standards for the selection, training, certification, and recertification of screening companies and their employees.

Partially in response to the Commission, Section 302 of the Federal Aviation Reauthorization Act of 1996, Pub. L. 104-264 (the Act) had the following requirement:

The Administrator of the Federal Aviation Administration is directed to certify companies providing security screening and to improve the training and testing of security screeners through development of uniform performance standards for providing security screening services.

In response to the Congressional mandate and to the Commission report, the FAA published an ANPRM on March 17, 1997, requesting comments on certification of companies providing security screening. The FAA received 20 comments from the public, all of which were substantive.

Subsequent to the publication of the ANPRM, the FAA began field testing threat image projection (TIP) systems and evaluating their potential for measuring screener performance. The FAA determined that the TIP systems would be integral to requiring that screening companies meet performance standards. Therefore, the FAA published an ANPRM withdrawal notice to allow TIP to be adequately field tested and validated before proceeding with the rulemaking. Although the ANPRM was withdrawn, the FAA considered and incorporated many of the commenter's suggestions in this proposal. The comments are summarized in the next paragraph.

While commenters disagreed on several issues, including the level of oversight responsibility air carriers should have over certificated screening companies, commenters generally agreed that national standards for security screening operations are needed. Approximately one-third of the commenters stated that certification of individual screeners would have a greater impact on improving safety than certification of screening companies. They also stated that

the certification of individual screeners would improve screener professionalism and performance. In addition, approximately one half of the commenters stated that air carriers conducting screening operations should be subject to the same standards as certificated screening companies.

## II. Proposal

This rulemaking has two objectives: to propose procedures for certification of screening companies and to propose requirements to improve screening. The FAA believes that this proposal would improve performance, improve the consistency and quality of screening, and meet the Congressional mandate.<sup>1</sup>

The FAA proposes to achieve the regulatory objectives by creating a new part 111 which would contain all requirements for screening companies. Part 111 would require certification of all screening companies that perform screening for air carriers under part 108, indirect air carriers under part 109, and foreign air carriers under part 129. The proposal would affect the screening that is done by inspecting persons or property.'

The inclusion of screening certification requirements for indirect air carriers in this proposal is due to the FAA's belief that cargo must also be subjected to rigorous controls to provide the proper level of security in aviation. Currently, only certain cargo carried on passenger air carriers must be screened. The FAA proposes that the inspection of cargo for unauthorized explosives and incendiaries be done only by certificated screening companies, similar to the proposal for persons, carry-on items and checked baggage. Under this proposal, cargo carried on any air carrier must be screened by a certificated screening company. Indirect air carriers that elect to perform screening would be required to either hold a screening company certificate or contract with a certificated screening company to perform the screening.

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<sup>1</sup> Many screening improvements would not be in the rule, but would be made through changes to non-public documents such as the Air Carrier Standard Security Program (ACSSP).

<sup>2</sup> These inspections are currently performed by a variety of methods such as manual search, metal detectors, x-ray machines, explosive detection systems, explosives trace detection systems, and advanced technology devices.

This proposed rule would not shift responsibility to screening companies, but rather would ensure that those who conduct screening are fully qualified to do so. All air carriers, by statute, remain responsible for screening persons and property carried in the aircraft cabin. This rule would increase the level of responsibility required of screening companies. Screening companies would have primary responsibility for the day-to-day operation of the screening location while carriers would be held accountable for repeated failure to comply with the regulations.

The proposed rule would also establish a separate Screening Standard Security Program (SSSP) for screening companies that would accompany the requirements in proposed part 111. The SSSP would contain most of the requirements relating to screening that are currently contained in the carrier security programs, as well as additional requirements related to proposed requirements in part 111. Most notable are the proposed requirements to include performance standards through the use of threat image detection technology. Specifically, the proposed rule would require the use of threat image projection (TIP)<sup>3</sup> systems, along with other forms of testing, as the basis for establishing standards to measure screener performance. There are major benefits to be gained from using TIP systems to measure performance. The use of TIP systems would strengthen screening company and carrier accountability as well as improve screening detection.

Screening companies would be required to submit their training programs, along with several other items regarding the companies, to the FAA as part of their application process for certification. The compilation of these items would be included in each operator's operations specifications. The FAA would approve the operations specifications as part of the application process; this document could be readily updated in response to changes within the companies.

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<sup>3</sup> This computer-based system is capable of introducing test objects to screeners on the x-ray machines and EDS machines at any rate set on the computer. The program can be set to run all the time that the screening location is in use. The test items can easily be added to or changed by simply loading new software into the computer. The success rates can easily be recorded and later analyzed by the FAA, the carriers, and the screening companies to continuously monitor how well the screening location is operating. TIP also serves as a continuous means of on-the-job training for screeners.

The major proposals are as follows:

- The proposed rule would require certification of all screening companies. Any air carrier that performs screening for itself or for other carriers would have to obtain a screening company certificate;
- The proposed rule would provide for provisional certificates for both new and existing screening companies. Before the end of the provisional period, all screening companies would be required apply for a screening company certificate, which would be valid for 5 years;
- Responsibility for the performance of a screening company would be borne by the screening company and the applicable carrier;
- The proposed rule would require approval of operations specifications that would include location of screening sites, type of screening, equipment and methods of screening, and screener training curriculums. In addition, the proposed rule would require that screening companies adopt and implement an FAA-approved security program;
- Employment standards would be provided for all screening company personnel, including new training requirements for screeners regarding courteous and efficient screening, and for supervisors regarding leadership and management subjects;
- The proposed rule would require that screening companies have qualified management and technical personnel;
- The proposed rule would specify training requirements for screening companies regarding training programs and knowledge of subject areas;
- The proposed rule would require that all screening personnel pass computerized FAA knowledge-based and x-ray interpretation tests;
- The proposed rule would require that carriers install TIP systems on x-ray and explosives detection systems (EDS's);
- The proposed rule would prohibit interference with screening personnel in the course of their screening duties; and
- The proposed rule would help to establish professionalism of screeners, such as providing for mobility of screener records and requiring letters of completion to be issued to each screener upon the successful completion of the screener's approved course of training.

### III. Cost of Compliance

The FAA has analyzed the expected costs of this regulatory proposal for a 10-year period, from 2000 through 2009. As required by the Office of Management and Budget (OMB), the present value of this cost stream was calculated using a discount factor of 7 percent. All costs in this analysis are expressed in 1997 dollars.

#### Assumptions

The FAA estimates that in 2000, there would be approximately 19,600 screeners and screener supervisors affected by this proposed rule.<sup>4</sup> At many airports, each checkpoint security supervisor (CSS) has a supervisor, also known as a shift supervisor. The FAA has not been able to discern how many shift supervisors there are as each screening company's supervisory structure is different. Accordingly, the FAA assumes one shift supervisor at the 100 busiest international and domestic airports. Hence, the total number of screeners that would be affected by this rule in 2000 includes 2,900 CSS's, 100 shift supervisors, and 16,600 screeners.

With two exceptions, the FAA estimates that one trainer would be needed for every 40 screeners or x-ray technicians to be trained under these proposals. For the leadership training required under §§ 111.205 and 111.209, one trainer would be needed for every 20 individuals.

Companies that have traditionally been providing passenger screening for direct and foreign air carriers will be referred to, in this analysis, as SC's (screening companies). Some air carriers do their own passenger screening and/or provide screening for other air carriers; in the context of passenger screening, these carriers will be referred to as SC's.

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<sup>4</sup> Information obtained from AAIRS (Airport Aircarrier Information Reporting System), in November 1998, was used to determine the number of screeners employed by companies performing screening for part 108 air carriers. The FAA assumes the annual growth in the number of screeners at 1.5% (see Table A-5 in Final Regulatory Impact Analysis, Regulatory Flexibility Determination, and Trade Impact Assessment, Final Rule, Alcohol Misuse Prevention Program for Personnel Engaged in Specified Aviation Activities, Office of Aviation Policy, Plans, and Management Analysis, FAA, February 1994).



There currently are 66 SC's performing screening for part 108 and part 129 air carriers,<sup>5</sup> and on average, a screening company performs screening for 12 air carriers.<sup>6</sup> The FAA estimates that there would be an additional 3 SC's that would be covered by these regulations each year starting in 2001. The 66 screening companies operate at 821 screening locations.' At some airports, SC's may provide screening at more than one screening location; this is as a result of different airports' configurations. At 288 screening locations, SC's have more than one presence at the same airport. Subtracting 288 from 821 leaves 533 SC presences at the 454 airports that have screening.' The FAA assumes that the number of company presences and screening locations would remain constant over the period of the analysis.

There are currently 150 air carrier operators providing scheduled and other domestic and international passenger service in the United States that are certificated under part 108; these carriers will be referred to in this analysis as direct air carriers. The FAA assumes that some of these direct air carriers would continue to screen their own cargo and accept the new requirements under proposed part 111; in this analysis, such direct air carriers will be referred to as DSC's (for Direct air carrier Screening Companies). The FAA will differentiate between those costs that all direct air carriers would incur and those additional costs that only the DSC's would incur. In addition, there are 2,634 indirect air carriers certificated under part 109,<sup>9</sup> and 145 foreign air carriers certificated under part 129 (FAC's).

Each of these types of carriers, direct, indirect, and foreign, has an FAA-approved security program, known as the

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<sup>5</sup> A part 108 air carrier is an air carrier that operates under a security program based on part 108 and approved by the FAA. A part 129 air carrier is a foreign air carrier that operates under a security program based on part 129 and approved by the FAA.

<sup>6</sup> Based on information from AAIRS, November 1998.

<sup>7</sup> Based on information from AAIRS, November 1998.

<sup>8</sup> Some airports have more than one SC doing passenger screening; hence there are more screening presences than airports.

<sup>9</sup> An indirect air carrier (IAC) is paid to arrange for transportation of cargo, and some or all of the route is by passenger air carrier. The IAC does not itself operate passenger aircraft. It is "indirect" air transportation because the IAC is not directly transporting the cargo on its own passenger flights, it is indirectly doing so by contract with passenger carriers.

Air Carrier Standard Security Program (ACSSP), Indirect Air Carrier Standard Security Program (IACSSP), and the Model Security Program (MSP), respectively. The FAA assumes that the number of direct, indirect, and foreign carriers would remain constant for each year of the analysis.

Of the 821 screening locations, 8 are currently operated solely by FAC's, while the others are operated by direct air carriers, either exclusively or in concert with FAC's. Seven different foreign air carriers are responsible for these 8 checkpoints. The FAA estimates that in 2000, there would be 140 screeners and 37 CSS's working at these checkpoints.

In this analysis, the FAA will attribute costs at screening checkpoints used solely by these FAC's to FAC's and at screening checkpoints used by both direct air carriers and FAC's solely to direct air carriers. While this will overstate costs to direct air carriers and understate costs to FAC's, it is impossible to know what percentage of time or resources, at these latter checkpoints, can be directly attributed to either direct or foreign air carriers. The FAA assumes that the number of screening locations operated exclusively by FAC's and the number of foreign air carriers responsible for these sites will remain constant for each year of the analysis.

Air carriers that choose to screen cargo would need to comply with the provisions that regulate SC's.<sup>10</sup> Indirect air carriers that perform their own screening will be referred to in the text as ISC's (for Indirect air carrier Screening Companies); otherwise they would either use a DSC or a SC for screening purposes. Direct air carriers that choose not to perform their own cargo screening would employ a SC. As operational needs vary per location, not every ISC or DSC would screen at each location that they service. Depending on the nature of the ISC and/or DSC, some would opt for x-ray screening while others would perform physical search. As these requirements would be new, the FAA does not know how many air carriers would screen, at how many locations they would screen, and which would use x-ray as opposed to physical search, and so makes the following assumptions:

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<sup>10</sup> The FAA assumes that some DSC's and ISC's would choose to do their own screening, with time being a very expensive commodity, for it would be cost beneficial for them to do so rather than depend on another screening company to perform the services.

- Approximately 10 percent of DSC's and ISC's would screen their own cargo;
- Of this 10 percent, approximately 75 percent would do the screening using physical search and the rest would use x-ray equipment;
- The average direct air carrier services 24 airports while the average indirect air carrier services 4 airports;"
- Each DSC and ISC would screen at 75 percent of the airports that they service;" and
- No FAC would do their own screening for cargo, and hence, none would need to be certificated for cargo screening under this part.

These assumptions can be summed up in Table 1:

TABLE 1- DSC AND ISC CARGO SCREENING ASSUMPTIONS						
Type of companies	Number to do x-ray d	Number to o physical search	Average number of locations per air carrier	Average number of locations air carrier needs screening certificate	Locations to screen using x-ray machines	Locations to screen using physical search
DSC	4	11	24	18	72	198
ISC	66	198	4	3	198	594

In addition, the FAA assumes that each such DSC and ISC screening location has two screeners and a backup. The FAA calls for comments on each of these DSC, ISC, and FAC assumptions and requests that all comments be accompanied by clear documentation.

Hence, in 2000, the FAA assumes that there would be 66 SC's, 15 DSC's, and 264 ISC's. All of these would be performing screening, and as screening companies, each would be subject to these proposed regulations.

Currently, all cargo screening is performed by direct air carriers. Under this proposed rule, some of the cargo screening would be performed by indirect air carriers, certificated under part 111. Hence, the only change would be who performs the screening; DSC's would perform less screening, with this additional screening going to ISC's. As there is no change in the total amount of cargo screening being performed, there would be no change in the total labor

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<sup>11</sup> Source: The Office of Civil Aviation Security (ACS), FAA, October 1998.

<sup>12</sup> At some of the locations that DSC's and ISC's service, the operation is so small that it would not pay that air carrier to do their own screening.

costs, simply a transfer of labor costs from DSC's to ISC's. While the FAA can make assumptions as to the number of ISC's that would screen, the FAA does not know how much cargo would be screened by ISC's and how much less would be screened by DSC's. Accordingly, the FAA can not estimate the additional labor costs for ISC's or labor savings for DSC's. The FAA calls for comments on how much cargo would be screened by ISC's, and requests that all comments be accompanied with clear documentation.

Several of the proposed sections involve one entity, such as a SC, sending documentation, such as their operations specifications or modifications to their security program, to another entity, such as the FAA, to review and/or approve this documentation. In all these cases, the FAA assumes that 19 percent of the time, the latter entity would return these documents for modifications.<sup>13</sup> The documents being returned would need to be changed, involving additional costs.

Table A-1 in Appendix A shows the number of screeners, CSS's, shift supervisors, screener trainers, number of SC's, and screeners transferring between companies that the FAA forecasts for each of the ten years of this analysis. Table A-2 shows, for SC's, the projected total (due to turnover and the annual increase in personnel) number of screening personnel, CSS's, and shift supervisors as well as the projected number of retained CSS's and shift supervisors.<sup>14</sup> Table A-3 shows the hourly wage rates, annual turnover rates, and annual growth rates for the different types of employees covered by this proposed rulemaking. Table A-4 sums up the basic data assumptions used by this analysis.

Some of the sections of the proposed part 111 make references to parts 108 and 109, and this analysis also examines potential changes to parts 108 and 109. The numbering system for part 108 of this NPRM is based on the numbering system of a recently published NPRM; on August 1, 1997, the FAA published Notice No. 97-12, which proposes to revise 14 CFR part 108 to update the overall regulatory

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<sup>13</sup> This percentage, 19%, was reported by airports involving returns from their submission of their Airport Security Programs; this data comes from an unpublished American Association of Airport Executives (AAAE) membership survey, performed in 1991, on the costs of complying with the individual sections of part 107.

<sup>14</sup> Given the average annual turnover rate for screeners of over 100%; this analysis does not calculate any costs for retained screeners.

structure for air carrier security (62 FR 41730). This notice proposes to amend the proposed rule language of part 108 in Notice No. 97-12 rather than the current part 108. The numbering systems for revised part 109 (and proposed part 111) also are closely aligned with the Notice No. 97-12 numbering system for clarity and consistency. If the text refers to a proposed section in part 108 that is simply a renumbered section (based on Notice No. 97-12), the current section number will be placed in parentheses.

A. Incremental Costs of Subpart A - General

Subpart A would contain general information relating to applicability, definitions, inspection authority, falsification, and prohibition against interference with screening personnel.

111.1 Applicability

Proposed § 111.1 would prescribe the requirements for the certification and operation of screening companies. The requirements in proposed § 111.1 would apply to each SC, as well as those direct air carriers, ISC's, and FAC's that are responsible by statute for conducting screening operations. Since this proposed wording is definitional, there are no costs.

111.3 Definitions

The proposed wording to § 111.3 would include definitions applicable to conducting screening. Since this wording is definitional, there would be no costs.

111.5 Inspection authority

Proposed § 111.5 would require all companies performing screening to allow FAA inspection to determine compliance with its SSSP, its operations specifications, and with part 111. The screening company must also allow for FAA inspections and tests of equipment as well as procedures at screening locations that relate to the carrier's compliance with their regulations. This proposed section would also require screening companies to provide the FAA with evidence of compliance.

This proposed section would generate costs. The FAA estimates that it would need twelve additional inspectors, three based at FAA headquarters and one each stationed at the nine FAA regions; those at headquarters would be FG-14's while the others would be FG-13's. These additional personnel requirements would require the quarter-time use of a FG-5 secretary. The additional personnel would process all the paperwork involved with issuing the certificates, writing and approving the SSSP, approving operations specifications as well as processing any changes and amendments, and analyzing performance data. While the FAA envisions that the FG-13's would normally be stationed at each of the regions, they would also be available to work at FAA headquarters if the workload increased, such as in the first year of implementing the rule. The FAA also assumes that the Screening Performance Coordinator (SPC) would need to be available to assist these inspectors. Ten years costs above and beyond the SPC's time<sup>15</sup> sum to \$10.10 million (net present value, \$7.10 million).

#### 111.7 Falsification

Proposed § 111.7 would state that no person would be permitted to make any fraudulent or intentionally false statement with respect to the security program, operations specifications, certificate, records, or reports. The falsification provision in § 108.4 already covers screeners and screening companies; § 111.7 is included for clarification purposes only, so there would be no costs.

#### 111.9 Prohibition against interference with screening personnel

Proposed § 111.9 would include new requirements prohibiting any person from assaulting, threatening, intimidating, or interfering with screening personnel at any location when they are screening. The proposed rule is intended to prohibit interference that would distract or inhibit a screener from effectively performing his or her duties. This proposal would not impose any costs.

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<sup>15</sup> In this and several other sections, the time that the SPC spends is subsumed into the costs which are estimated under 111.209, 'Screening company management.'

The total ten years costs to Subpart A are \$10.10 million (net present value, \$7.10 million).

B. Incremental Costs of Subpart B - Security Program, Certificate, and Operations Specifications

Subpart B would prescribe requirements for security programs, screening company certificates, operations specifications, and carrier oversight.

111.101 Performance of screening

Proposed § 111.101 would require that each screening company conduct screening and screener training in compliance with part 111, the SSSP, the applicable security directives and emergency amendments, and the screening company's operations specifications. All costs related to the SSSP are covered under §§ 111.105 and 111.107 and to the operation specifications are covered under §§ 111.113 and 111.115; hence, there are no costs attributable to this proposed section.

111.103 Security program: adoption and implementation.

The FAA is proposing to establish a separate security program to accompany proposed part 111 rather than having each screening company adopt the relevant portions of the security program of each carrier it is screening for. Proposed § 111.103 would require that each screening company adopt and carry out a FAA-approved security program. The Screening Standard Security Program (SSSP) would contain requirements for conducting screening of persons, carry-on items, checked baggage, and cargo, for direct air carriers, ISC's, and FAC's. The SSSP would consolidate all of the screening-related requirements into a single source that screening companies could use to carry out their screening duties. The costs for adopting and carrying out these proposed requirements will be shown in proposed §§ 111.105 and 111.107; hence, there are no costs attributable to this proposed section.

111.105 Security program: form, content, and availability.

Proposed § 111.105 would provide specific requirements for the SSSP. The SSSP must provide for the safety of persons and property traveling on flights provided by all air carriers against acts of criminal violence and air piracy, and the introduction of explosives, incendiaries, deadly or dangerous weapons, or other destructive substances.

Personnel in the Office of Civil Aviation Security would write the basic SSSP document; the FAA would provide this document to the screening companies. The costs associated with all FAA personnel are described under § 111.5, 'Inspection authority.' Each screening company could choose to accept the basic SSSP or offer amendments.

When a screening company receives the SSSP, it would be required to acknowledge receipt of this document in writing within 72 hours. The FAA assumes that it would take a clerk no more than 10 minutes to perform this task. Assuming mailing costs of \$0.33 per amendment, ten year costs total \$1,400 (net present value, \$1,3000). Total costs for SC's would be \$400 (net present value, \$300), for DSC's would be \$100 (net present value, \$100), and for ISC's would be \$1,000 (net present value, \$900).

Either the company providing screening services or the FAA could initiate proposed amendments to amend the SSSP (the costs involved with offering or processing amendments are covered in § 111.107). The FAA assumes, for the purpose of this analysis, that amendments would occur three times a year on average, 1 1/2 times from the FAA and 1 1/2 times from each screening company. This proposed section would require that screening companies acknowledge receipt of amendments, from the FAA, to their programs in writing within 72 hours. The FAA assumes that it would take a clerk no more than 10 minutes to perform this task. Assuming mailing costs of \$0.33 per amendment and assuming an average of one and a half amendments per year, ten year costs total \$20,100 (net present value, \$14,000); total costs for SC's would be \$4,400 (net present value, \$3,100), for DSC's would be \$800 (net present value, \$600), and for ISC's would be \$14,800 (net present value, \$10,400).

Screening companies would be required to maintain at least one complete copy of the security program at their principal business office and at each airport served and make a copy of the program available for inspection upon the request of an FAA Special Agent. The FAA assumes that there would be one copy of the SSSP per screening company per airport. They



would also be required to provide a copy to each air carrier that they screen for.

As mentioned above, there are 533 screening company presences at airports, plus 270 DSC and 792 ISC screening checkpoints. In addition, each SC screens for, on average, 12 air carriers.<sup>16</sup> The FAA assumes that each SSSP would be 50 pages long, and that it would cost \$.10 to photocopy a page. No postage costs are being assumed as copies of the SSSP would be delivered during a routine visit of each checkpoint by a screening company official. This photostating would take time; the FAA assumes a photostat machine's output at 15 pages per minute, and a clerk at each company would do this photostating. In addition, the FAA assumes an additional half hour of work per clerk to arrange the materials for distribution. Total costs, for the first year would cost the SC's \$9,900, the DSC's \$1,800, and the ISC's \$7,700.

The modifications from each of the amendments would need to be distributed to each checkpoint; the FAA assumes that each amendment would modify, on average, two pages. Hence, an additional 3,198 pages would need to be distributed to at least one screening company checkpoint per company per airport (533 checkpoints times 3 modifications per year times 2 pages per modification), an additional 4,752 pages would need to be distributed to each air carrier that each screening company screens for ([66 screening companies times 12 carriers per screening company] times 3 modifications per year times 2 pages per modification), 1,620 pages for the DSC's and 4,752 pages for the ISC's. On an annual basis, total clerical and photostating costs sum to \$1,000, \$200, and \$600 for the SC's, DSC's and ISC's, respectively.

The FAA estimates that an additional 3 screening companies would be added after the first year for each year in the future. Each of these companies would need to send out copies of their SSSP to each of their the carriers they screen for as well as their screening locations. There are, on average, 12 checkpoints per screening company." The FAA assumes both photostating time and an additional half hour of work per clerk to arrange the materials for distribution. No postage costs are being assumed as the FAA assumes that

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<sup>16</sup> The FAA assumes that the copy that DSC's and ISC's produce for their principal business office would be the same as the copy that needs to be provided to the air carrier each screens for.

<sup>17</sup> Based on information from AAIRS, November 1998.

copies of the SSSP would be delivered during a routine visit of each checkpoint by a screening company official. Annual costs for these additional SC's would be \$900.

Hence, ten year costs for distribution of the SSSP's, including amendments, sum to \$44,100 (net present value, \$35,000); total costs for SC's sum to \$26,800 (net present value, \$21,600), for DSC's sum to \$3,800 (net present value, \$3,100), and for ISC's sum to \$13,500 (net present value, \$11,300).

Each screening company, and applicant for a screening company certificate would be required to restrict availability of information in their SSSP to those persons with an operational need-to-know in accordance with § 191.5. Air carriers have similar provisions with regard to sensitive security information (SSI). These SSI provisions have generated no additional costs to the air carriers; similarly, they would generate no additional costs to the screening companies.

Ten year costs for this proposed section sum to \$65,600 (net present value, \$50,400), of which the costs for SC's would sum to \$31,600 (net present value, \$24,000), DSC's would sum to \$4,700 (net present value, \$3,800), and ISC's would sum to \$29,300 (net present value, \$22,600).

#### 111.107 Security program: approval and amendments.

Proposed § 111.107 describes the procedures for seeking approval of the SSSP and amending it at a later date. This proposed section would require each screening company to submit a signed, written statement to the Assistant Administrator within 30 days of receiving the SSSP from the FAA indicating what its intentions were for adopting and carrying out a security program. A screening company could choose to adopt the SSSP as is, or adopt the SSSP after making amendments to it. The FAA's approval of the SSSP would be inherent in its granting the screening company its certificate.

The screening company would review the basic SSSP document which, as described in § 111.105, would be obtained from the FAA; the FAA assumes that it would take a clerk 30 hours and the SPC 16 hours to perform this review." The FAA further

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<sup>18</sup> Based on information from the unpublished AAAE survey

assumes that a clerk would need a total of 10 minutes to submit a signed letter to the FAA about its SSSP intentions, and that mailing costs for this letter would be \$0.33. In the event of amendments, SC's, DSC's and ISC's would need, on average, 20 hours of a clerk's time and 12 hours of an SPC's time to modify the document,<sup>19</sup> and no more than \$5 to mail it to the FAA. The FAA assumes 19 percent of the screening companies would modify their SSSP. Once the FAA has reviewed these modifications, the FAA assumes that it would take, on average, an additional 10 hours of a clerk's time and 6 hours of an SPC's time to incorporate the FAA's revisions of these modifications into the SSSP. Ten year costs above and beyond the SPC's time sum to \$263,600 (net present value, \$241,400), of which the costs for SC's would sum to \$65,900 (net present value, \$56,700), DSC's would sum to \$10,600 (net present value, \$9,900), and ISC's would sum to \$187,100 (net present value, \$174,800).

Either the company providing screening services or the FAA could initiate amendments to the SSSP. As discussed above, the FAA assumes, for the purpose of this analysis, that this would occur 3 times a year on average. The FAA estimates that it would take this company an average of 48 hours to prepare a proposed amendment and/or respond to a proposed amendment by the FAA; this includes 16 hours for the SPC and 32 hours for a clerk.<sup>20</sup> Postage costs would not be expected to exceed \$5. The FAA assumes that modifications would occur to the screening company's proposed amendments 19 percent of the time, which would necessitate the screening company changing and then resubmitting the document again.

Each company would then need to brief its employees on these changes; the SC's would need to brief their screeners, CSS's, and shift supervisors, while the DSC's and ISC's would need to brief the screeners at each location. The FAA assumes that 20 minutes would be needed for this briefing. Ten year costs for this entire amendment process, above and beyond the SPC's time, sum to \$9.17 million (net present value, \$6.41 million), of which the costs for the SC's sum to \$3.12 million (net present value, \$2.16 million), for the DSC's sum to \$338,800 (net present value, \$237,900), and for the ISC's sum to \$5.71 million (net present value, \$4.01 million).

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<sup>19</sup> Based on information from the unpublished AAAE survey

<sup>20</sup> Based on information from the unpublished AAAE survey

Screening companies would be required to include in the amendment package a statement that all carriers for which they screen have been advised of the proposed amendment and have no objection to it. Because carriers would retain primary responsibility for screening, it would be essential that they concur with any changes requested by those who screen on their behalf.

This proposed provision would entail costs to both the SC and the air carrier (both direct air carrier and FAC) that it screens for. The FAA assumes that a clerk would need a total of 10 minutes to send the package to each air carrier that that company screens for, with mailing costs per package totaling no more than \$5. As above, the FAA assumes that modifications would occur 19 percent of the time, which would necessitate the screening company resubmitting the document again. The FAA estimates that it would take this company an average of 48 hours to modify a proposed amendment based on the air carrier's comments; this includes 16 hours for the SPC and 32 hours for a clerk along with postage of no more than \$5. Over ten years, costs above and beyond the SPC's time would sum to \$1.97 million (net present value, \$1.35 million). Only SC's would be subject to cost for this provision as both DSC's and ISC's would not be screening for any other air carrier.

Both direct air carriers and FAC's would need to spend time evaluating the proposed amendments by the screening companies. The FAA assumes that a clerk would require 32 hours and the GSC 16 hours to review these proposed amendments. The same amount of time would be required if the amendments need to be modified and are resubmitted. Assuming no more than \$5 for postage, over ten years, costs for direct air carriers sum to \$18.23 million (net present value, \$12.53 million) and for FAC's sum to \$140,100 (net present value, \$98,400).

Both direct air carriers and FAC's would also be provided the opportunity to comment regarding proposed changes by the FAA to the SSSP. The FAA assumes that direct air carriers would comment 19 percent of the time, and as above, would take an average of 48 hours to respond to the proposed amendment. This time includes 16 hours for the GSC and 32 hours for a clerk. Assuming postage costs of no more than \$5, over ten years, costs for direct air carriers would sum to \$18.23 million (net present value, \$12.53 million) and for FAC's sum to \$140,100 (net present value, \$98,400).

Total ten year costs for § 111.107 sum to \$48.13 million (net present value, \$33.27 million), of which costs to SC's sum to \$5.15 million (net present value, \$3.57 million), to direct air carriers (including DSC's) sum to \$36.80 million (net present value, \$25.32 million), to ISC's sum to \$5.90 million (net present value, \$4.18 million), and to FAC's sum to \$280,200 (net present value, \$196,800).

#### 111.109 Screening company certificate

Proposed § 111.109 would require screening companies, DSC's, and ISC's to have certificates. Persons interested in applying for a screening company certificate would write to the FAA requesting an application package.

All companies would apply initially for provisional certificates. Companies that do not hold a screening company certificate could apply for a provisional screening company certificate. The FAA would issue a provisional certificate" if it finds that the applicant is able to meet the requirements of this part, its SSSP, and its approved operations specifications.<sup>23</sup>

Companies actively screening as of the effective date of publication of the final rule would need to apply for a provisional certificate within 60 days. Existing companies would be permitted to continue their screening activities uninterrupted while their applications are considered.

Since the information provided with the initial application for the provisional certificate would be used to compile the operations specifications, the costs of the initial application would not be covered in this section, but rather in § 111.113. This provisional certificate would be good for one year unless suspended, revoked, or surrendered earlier. Both existing and new screening companies

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<sup>21</sup> Total costs of requirements affecting all direct air carriers sum to \$36.46 million (net present value, \$25.07 million), while total costs accruing only to DSC's sum to \$349,400 (net present value, \$247,900).

<sup>22</sup> The purpose of the proposed provisional certificate is to provide a probationary period for the FAA to monitor the company's screening performance.

<sup>23</sup> The operations specifications are covered in §§ 111.111, 111.113, and 111.115.

receiving provisional certificates would have to demonstrate that they meet the requirements for FAA standard certification and also would be subject to a rigorous application process to obtain standard certificates. The FAA does not expect that these companies would incur additional costs as a result of this scrutiny. The FAA personnel described under § 111.5, 'Inspection authority' would process the applications and inspect screening company operations.

The standard certificate would be effective for five years. The FAA assumes, for this analysis, that all screening companies that are granted provisional certificates would subsequently be granted standard certificates. FAA personnel would also make an in-depth review for this five-year renewal and this review would be more thorough than that conducted during periodic inspections. The review for a 5-year renewal would involve a paper review as well as a review of all the information for trend analysis to determine operational effectiveness.<sup>24</sup> As above, the FAA personnel described under § 111.5, 'Inspection authority', would conduct these reviews.

Obtaining a standard certificate would generate costs. The FAA assumes that a SPC would need to spend 2 hours and a clerk would need to spend 4 hours in applying for the initial standard certificate. For renewals, the FAA assumes that a SPC and a clerk would need to spend 1 1/2 and 3 hours, respectively. Assuming mailing charges of no more than \$5 per package, ten year costs above and beyond the SPC's time sum to \$57,100 (net present value, \$43,300), of which the costs for SC's would sum to \$13,100 (net present value, \$9,700), DSC's would sum to \$2,400 (net present value, \$1,800), and ISC's would sum to \$41,600 (net present value, \$31,800).

As part of its renewal procedures, the FAA would use TIP data to measure a screening company's overall screener performance. This data would then be used to help evaluate whether a standard screening company certificate should be issued or renewed.

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<sup>24</sup> Before the FAA would renew a certificate, it would review the company's operations specifications (including the training curriculum), required records, the results of FAA inspections and any enforcement actions that were taken, performance data, and any other relevant information.

The FAA would inspect screening companies regularly and would continually monitor operations and tests to determine that each screening company is in compliance with the regulations, its SSSP, and its operations specifications. This would result in consistent and close monitoring of screening operations. The costs of these regular inspections are covered under § 111.5, 'Inspection authority.'

Once a certificate is obtained, screening companies would need to apply for an amendment to change any of the information on the certificate.<sup>25</sup> The FAA assumes that a SPC would need to spend 1 hour and a clerk would need to spend 2 hours on each amendment,<sup>26</sup> and that a certificate would be amended once every other year on average. Assuming mailing charges of no more than \$0.33 per letter, ten year costs above and beyond the SPC's time sum to \$76,000 (net present value, \$53,100), of which the costs for SC's would sum to \$16,800 (net present value, \$11,500), DSC's would sum to \$3,200 (net present value, \$2,200), and ISC's would sum to \$56,000 (net present value, \$39,400).

Thus, total ten year costs for § 111.109 above and beyond the SPC's time sum to \$133,000 (net present value, \$96,400), of which the costs for SC's would sum to \$29,900 (net present value, \$21,200), DSC's would sum to \$5,500 (net present value, \$4,000), and ISC's would sum to \$97,600 (net present value, \$71,100).

#### 111.111 Operations specifications: adoption and implementation

Proposed § 111.111 would require screening companies to have FAA-approved operations specifications (ops specs) before they may perform screening.\*' Screening companies would

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<sup>25</sup> Amendments would be needed, for instance, if there were changes in the name of the screening company and the names under which it would do business.

<sup>26</sup> The FAA is assuming less time would be needed to amend certificates than to amend the SSSP due to the much simpler nature of the certificate. Information that would be on the certificate, such as the incorporation and tax identification information as well as the name of the company's chief executive officer and screening performance coordinator, is much easier to modify than portions of a security program.

prepare ops specs with FAA guidance. Once given, further FAA approval would only be necessary if the screening company were to amend its ops specs.

This proposed section establishes the requirements for the ops specs. The cost for the ops specs is covered in the discussion of proposed § 111.113, and the submission and amendment procedures is covered in the discussion of proposed § 111.115; therefore, no costs have been attributed to § 111.111.

111.113 Operations specifications: form, content, and availability

Proposed § 111.113 would stipulate what each screening company would need to have in its ops specs in order to get a screening certificate." This requirement would emphasize the different capabilities and needs of the various companies that perform screening. The ops specs would list the types of screening the company would be authorized to perform.

Each company would be required to submit its ops specs to the FAA.<sup>29</sup> The FAA believes that a SPC and a clerk would need 50 hours each to write up this document. The costs of mailing these ops specs to the FAA are covered in § 111.115. Ten year costs above and beyond the SPC's time sum to \$392,800 (net present value, \$359,700), of which costs for SC's sum to \$99,000 (net present value, \$85,200) for DSC's

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<sup>27</sup> The FAA also proposes, however, to provide some accommodation for existing SC's. There are many companies that have been providing required screening services for several years. The FAA has observed their operations and is familiar with these companies. The FAA proposes in § 111.109(1) that companies actively screening anytime during the year before the date of publication of the final rule would be able to continue screening after the effective date, if they submit an application for a provisional certificate within 60 days after publication of the final rule.

<sup>28</sup> These would include the following items: the location(s) at which the company may conduct screening; the types of screening the company is authorized to perform; the equipment and methods of screening the company may employ; the name of the company's SPC; the procedures for notifying the FAA and the carrier for which the company is performing screening if an equipment or facility failure makes the performance of adequate screening impracticable; and the curriculum used to train persons performing screening functions.

<sup>29</sup> The costs involved with the approval and amendment processes are described in § 111.115.



sum to \$15,800 (net present value, \$14,800), and for ISC's sum to \$278,000 (net present value, \$259,800).

In addition, screening companies would be required to maintain a complete copy of their ops specs at their principal business office and at each airport where they conduct security screening. Screening companies would also have to ensure that the ops specs are amended to remain current and made available to an FAA inspector upon request. Screening company would be required to provide a current copy of their ops specs to the carriers for which they screen.

There are currently 821 screening checkpoints; each of them would need to have a complete set of ops specs. In addition, the average SC screens for twelve air carriers; this would require an additional 792 complete copies (calculation: 66 SC's times 12 air carriers per SC). Even though many SC's might transmit copies of their ops specs electronically and have them printed out, to be conservative, the FAA is costing out this part of the proposed rule for photostated hard copies being available at each checkpoint and being sent to each air carrier.

The FAA assumes that each SC would make a photostat copy of its ops specs located at its principal business office for distribution to each checkpoint and to each air carrier it screens for. At 10 cents per photostated page, and with the average size of the ops specs at 30 pages, these initial costs would sum to \$4,800 ([821 checkpoints plus 792 copies to air carriers] times 30 pages times 10 cents per page).

In addition, as will be discussed in § 111.115, the FAA assumes that the ops specs would be modified four times per year, twice by the screening company and twice by the FAA. These new modifications would need to be distributed to each checkpoint and each air carrier; the FAA assumes that each amendment would modify, on average, two pages. Hence, an additional 12,904 pages ([821 checkpoints plus 792 copies to air carriers] times 4 modifications per year times 2 pages per modification) would need to be distributed to the checkpoints each year.

As mentioned above, the FAA estimates that an additional 3 SC's would be added after the first year for each year in the future. Each of these companies would need to send out copies of their ops specs to each of their screening locations. There are, on average, 12 checkpoints per SC.

Doing this photostating would take time; the FAA assumes a photostat machine's output at 15 pages per minute. A clerk at each company would do this photostating; the FAA also assumes an additional hour of work per clerk to arrange the materials for distribution. No postage costs are being assumed for delivery to the checkpoints as the FAA assumes that copies of the ops specs would be delivered during routine visits of each checkpoint by a SC official. Postage costs for delivery of the ops specs to the air carriers would be no more than \$5 for the initial package and \$0.33 for each amendment. Ten year costs for the copying and distribution of the ops specs by SC's sum to \$47,700 (net present value, \$35,400).

DSC's and ISC's would face the same cost structure with two exceptions. The analysis is not assuming an increase in the number of such air carriers performing their own screening, so costs would be based, for the ten years the analysis is examining, on 15 DSC's and 264 ISC's doing screening. In addition, DSC's and ISC's would not need to provide a copy of the ops specs to the air carrier that they screen for. Ten year costs for DSC's sum to \$6,800 (net present value, \$5,000) and for ISC's sum to \$66,400 (net present value, \$47,300).

Total ten year costs for § 111.113 sum to \$513,700 (net present value, \$447,400), of which costs to SC's sum to \$146,700 (net present value, \$120,500), to DSC's sum to \$22,600 (net present value, \$19,800), and to ISC's sum to \$344,300 (net present value, \$307,100).

#### 111.115 Operations specifications: approval and amendments

Proposed § 111.115 describes the procedures for approving each company's ops specs and future amendments to these ops specs. During the application process for a provisional certificate, the company would submit its ops specs to the FAA for approval. The FAA would review the ops specs to consider whether changes were needed. Further FAA approval of ops specs would only be necessary if the screening company sought to amend them. Costs would be a function of the number of companies submitting ops specs per year, the number of ops specs that would be modified initially and annually in the future, personnel costs, and mailing costs.

After being sent to the FAA for review and approval, the Agency assumes that 19 percent of these ops specs would need to be returned for modifications. On average, a total of 48 hours would be needed by each screening company to modify the document; this total includes 16 hours for the SPC and 32 hours for a clerk. Assuming postage per ops specs submission (both initial and revised) of no more than \$5, ten year costs above and beyond the SPC's time sum to \$49,800 (net present value, \$45,700), of which the costs for SC's would sum to \$12,500 (net present value, \$10,700), DSC's would sum to \$2,000 (net present value, \$1,900), and ISC's would sum to \$35,400 (net present value, \$33,100).

Each company could propose amendments to its ops specs. The FAA assumes, for the purpose of this analysis, that companies would amend ops specs an average of twice a year. The FAA estimates that it would take each screening company an average of 32 hours to prepare the document; this time includes 12 hours for the SPC and 20 hours for a clerk. The FAA assumes that 19 percent of these amendments would need to be returned for modifications, with the SPC and clerk needing to spend 4 and 6 hours, respectively, on these changes. Postage costs are assumed to be no more than \$5.

After acceptance, each screening company would then need to brief its employees on each of these changes; the FAA assumes that 20 minutes would be needed for this briefing.<sup>30</sup> Ten year costs above and beyond the SPC's time sum to \$2.66 million (net present value, \$1.86 million), of which the costs for SC's would sum to \$1.25 million (net present value, \$866,800), DSC's would sum to \$107,400 (net present value, \$75,400), and ISC's would sum to \$1.31 million (net present value, \$917,800).

The FAA may also amend the ops specs. The FAA assumes, for the purpose of this analysis, that this would occur, on average, twice a year. The FAA estimates that it would take each company an average of 20 hours to respond to the proposed amendment by supplying written information and any counter proposals. This includes 12 hours for the SPC and 20 hours for a clerk along with postage of no more than \$5. The company would then need to brief its employees on these changes; the FAA assumes that 20 minutes would be needed for

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<sup>30</sup> SC's would need to brief all screeners, CSS's, and shift supervisors. Both DSC's and ISC's would need to brief the three screeners per location who had been trained.

this briefing. Ten year costs above and beyond the SPC's time sum to \$2.57 million (net present value, \$1.80 million), of which the costs for SC's would sum to \$1.23 million (net present value, \$853,000), DSC's would sum to \$103,400 (net present value, \$72,700), and ISC's would sum to \$1.24 million (net present value, \$871,700).

In all cases, the costs for the FAA time are included in the annual personnel costs discussed in § 111.5, 'Inspection authority.' Hence, total ten year costs above and beyond the SPC's time for § 111.115 would sum to \$5.29 million (net present value, \$3.70 million), of which the costs for SC's would sum to \$2.49 million (net present value, \$1.73 million), DSC's would sum to \$212,800 (net present value, \$150,000), and ISC's would sum to \$2.58 million (net present value, \$1.82 million).

111.117 Oversight by air carrier, foreign air carrier, or indirect air carrier

Proposed § 111.117 would require each screening company to allow each carrier for which it performs screening to inspect its personnel, facilities, equipment, and records to determine compliance with part 111, its SSSP, and its ops specs. The proposed regulation would also require that the screening company allow the same carrier(s) to test the screening company's screening personnel using procedures specified in the applicable security program.<sup>31</sup> If a carrier conducts screening on its own behalf or for other carriers, it would still have to perform oversight functions.

Direct air carriers and FAC's currently inspect the locations of the SC's that are screening for them. The FAA further assumes that because of these new requirements, there would be additional audits on an average of once a week, taking 20 minutes, which would be performed by the GSC (or designee). Additional files and file storage would cost each air carrier, on average, \$100 per year. Ten year costs for direct air carriers sum to \$4.75 million (\$3.33 million) and for FAC's sum to \$41,000 (net present value, \$28,800).

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<sup>31</sup> This is a natural consequence of the fact that carriers are ultimately responsible for proper screening and must be able to ensure that the SC's are in compliance and that screening personnel are performing adequately.

In addition, DSC's and ISC's would have additional costs. The GSC (or designee) would need to perform both a weekly 20 minute audit of all of their own screening sites.<sup>32</sup> Part of this audit would be to test two "kits", the current standard kit and the Improvised Explosive Device (IED) test kit.<sup>33</sup> The FAA estimates that the current standard kit costs \$162 while the IED test kit would cost \$395. Direct air carriers already have such kits (so DSC's would already have them), but ISC's would need to purchase both kits for each airport where they would have screening locations. In addition, the additional files and file storage would cost each carrier, on average, \$100 per year. Ten year costs for DSC's sum to \$1.16 million (net present value, \$815,500) and for ISC's sum to \$4.13 million (net present value, \$3.00 million).

Should an audit result in an alleged violation, a screening company would provide a copy of each letter of investigation and final enforcement action to each carrier using the screening location where the alleged violation occurred. This proposed requirement would assist the carrier in evaluating the performance of the screening company. The FAA proposes that the screening company would only have to provide copies of these documents to those carriers for which it was screening at the time and place of the alleged violation.<sup>34</sup> The proposed requirement to provide the copy within 3 business days would ensure that a carrier receives timely notice.

The FAA's Enforcement Investigation System (EIS) reflects 1,250 violations in 1996. Of these, AAIRS shows that about 60 percent, or 750, of them are violations that the SC may receive enforcement actions on were this proposal in effect. Given the number of active SC's, this equals, on average, 11 actions per company. Each action involves both a Letter of Investigation (LOI) and the Notice of Proposed Civil Penalty, or two letters. On average, each checkpoint is

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<sup>32</sup> As noted in the Assumptions section, the costs to FAC's would only be for 8 screening locations that are operated solely by FAC's.

<sup>33</sup> The current range of FAA-approved test objects includes such items as less sophisticated improvised explosive devices (IED's), handguns, and military explosives. The Improvised Explosive Device (IED) Test Kit contains the components for more sophisticated IED's; the components can be arranged in various configurations to represent a broad spectrum of devices.

<sup>34</sup> The costs here would only apply to SC's, as DSC's and ISC's which are doing screening would not send a letter to the applicable air carrier, i.e., themselves.

used by 4 air carriers.<sup>35</sup> Hence, each SC would need to send 88 letters per year (11 actions times 4 air carriers times 2 letters) to the relevant air carrier operator(s). Each letter is, on average, two pages long; assuming copying costs of \$.10 per page, copying costs would be \$0.20 per letter. Each SPC and clerk would be needed for an average of 10 minutes for each letter. Assuming mailing costs of \$0.33 per action to be sent, ten year costs above and beyond the SPC's time sum to \$282,600 (net present value, \$194,400).

Total ten year costs for § 111.117 sum to \$10.36 million (net present value, \$7.38 million), of which the costs for SC's sum to \$282,600 (net present value, \$194,400), for direct air carriers (including DSC's) sum to \$5.91 million (net present value, \$4.15 million),<sup>36</sup> for ISC's sum to \$4.13 million (net present value, \$3.00 million), and for FAC's sum to \$41,000 (net present value, \$28,800).

#### 111.119 Business office

Proposed § 111.119 would require each certificated security screening company to have a principal business office with mailing address and to notify the FAA of any address changes. The FAA does not expect that screening companies would maintain most of their files at the business office; most files would be retained on-site and available for inspection. The FAA assumes that virtually all businesses have a principal business office, and expects that a screening company would change its mailing address once every 3 years on average. The FAA assumes that a clerk would need to spend 10 minutes to produce the letter informing the FAA of the change. Assuming mailing charges of no more than \$0.33 per letter, ten year costs above and beyond the SPC's time sum to \$4,800 (net present value, \$3,300), of which the costs for SC's would sum to \$1,100 (net present value, \$700), DSC's would sum to \$200 (net present value, \$100), and ISC's would sum to \$3,500 (net present value, \$2,500).

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<sup>35</sup> Based on information from AAIRS, September 1998

<sup>36</sup> Total costs of requirements affecting all direct air carriers sum to \$4.75 million (net present value, \$3.33 million), while total costs accruing only to DSC's sum to \$1.16 million (net present value, \$815,500).

The total ten year costs to Subpart B are \$64.50 million (net present value, \$44.94 million).

#### C. Incremental Costs of Subpart C - Operations

Subpart C would prescribe requirements relating to screening operations such as screening of persons and property, use of screening equipment, employment standards, screening company managers and instructors, training and testing, and performance standards, among others.

##### 111.201 Screening of persons and property, and acceptance of cargo.

Under proposed § 111.201, screening companies would be required to use the procedures included in its SSSP to inspect person entering sterile areas and their accessible property to deter the introduction of explosives, incendiaries, or deadly or dangerous weapons. In addition, screening companies would be required to staff security screening checkpoints with personnel based on the standards specified in the security programs. SC's and DSC's, which already have the required personnel, would not have additional costs under this proposed section.

Indirect air carriers that choose to screen would have new responsibilities and costs; these costs would include those for training new personnel and, in some cases, purchasing new equipment.<sup>37</sup> These carriers would have the option of screening the cargo by means of physical inspection<sup>38</sup> or by using x-rays." For those ISC's using physical inspection, the FAA estimates that two screeners would need 3 hours of

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<sup>37</sup> As discussed in the Assumptions section, the FAA does not know how much extra cargo would be screened by ISC, and so can not estimate additional labor costs. However, since this is screening that is currently being performed by DSC's, there would be no change in the total labor costs for screening this cargo, simply a transfer of labor costs from DSC's to ISC's.

<sup>38</sup> This would primarily be moving companies and freight forwarders which offer warehousing, storage, inventory, and packing options. Inspection would need to be done as these companies put together shipments for transport.

<sup>39</sup> This would primarily be courier companies as it would be important not to breach customer's privacy. Standard x-ray machines (as commonly used at screening checkpoints) would be sufficient for most of their business.

training annually. For those using x-ray, the FAA estimates two screeners would need 7 hours of training annually. The FAA also assumes that each location would also have an additional person who would act as a backup; given an annual turnover rate of 33 percent, the FAA estimates that one of these people would leave each year, so as a replacement would also need to be trained, annual training costs are calculated for four people. Annual costs for each ISC's screening location which opts for physical inspection would be \$10,300, while for x-ray would be \$15,600. Those ISC's doing x-ray would need to purchase an x-ray machine; these costs are be discussed under § 109.207, 'Use of x-ray systems.'

As noted above in Table 1, the FAA estimates that 10 percent of the indirect carriers would do their own screening. The FAA believes that the majority of the cargo that an average indirect carrier handles does not require screening. Under these circumstances, it may not be cost effective for many indirect carriers to perform their own screening. If an indirect air carrier chooses not to screen, but has cargo that requires inspection, it would need to identify that cargo to the DSC so that the DSC can perform the necessary screening. To promote future business, it is probable that the DSC would not charge the indirect carrier for screening.<sup>40</sup>

Total ten year costs sum to \$1.01 million (net present value, \$711,300). These costs may be lower if more ISC's choose to let DSC's or screening companies do their screening; the FAA solicits comments on this and requests that all comments be submitted with clear documentation.

#### 111.203 Use of screening equipment.

Under proposed § 111.203, each screening company would be required to operate all screening equipment in accordance with its SSSP. This equipment would include equipment such as metal detectors, x-ray systems, EDS's, and explosives trace detectors. In most cases, the carrier that contracts with the SC for its screening services owns and maintains the equipment and provides it to the screening company for its use. While screening companies would be responsible for the day-to-day operational testing and operation of the

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<sup>40</sup> If a screening fee is assessed by the DSC, the charge would be passed on to the shipper by the ISC.



equipment, the carriers would still retain responsibility for the calibration of the equipment. Since this proposed part reflects current practice, there would be no additional costs.

#### 111.205 Employment standards for screening personnel.

Under existing regulations, employment standards for screening personnel are provided as requirements for air carriers under proposed § 108.209 (current § 108.31) and for FAC's under their MSP. Since these requirements include standards regarding the screening personnel to be hired by screening companies, the FAA proposes to relocate them from part 108 and the MSP to part 111 under proposed § 111.205. There would not be any costs for relocating employment standards from part 108 and the MSP to part 111.

The consolidation of all employment standards would impose some additional requirements on screening companies conducting screening for FAC's. Specific differences from the current MSP standards are that the proposed rule requirements would expand the English language requirements, add education requirements, and add specific screener evaluation requirements. Costs would thus accrue to those screening companies that only conduct screening for FAC's. However, all FAC's are currently complying with the existing the part 108 employment standards, either because their screeners also rotate into checkpoints operated by part 108 carriers, or because they have agreements with the Civil Aviation Security Field Office (CASFO) to comply with the § 108.31 standards to make things easier and more consistent. Thus, there would be no additional requirements, or costs, due to these additional requirements for FAC's.

The proposed rule would require initial and recurrent training for persons who would screen passengers, checked baggage, and carry-on items; this training would include ensuring that persons being screened be screened in a courteous and efficient manner and in compliance with the applicable civil rights laws of the United States. The FAA and the DOT have received reports that some screeners may have been discourteous, and may have improperly discriminated against certain individuals. This proposed section would generate costs. All screeners, CSS's, and shift supervisors would be required to take this training; the FAA assumes that the initial training would take four

hours, while the recurrent training would take two hours. Over ten years, this proposed change would cost \$7.15 million (net present value, \$4.99 million), of which the costs to SC's would total \$6.30 million (net present value, \$4.39 million), to DSC's would total \$217,500 (net present value, \$153,700), and to ISC's would total \$637,600 (net present value, \$450,800).

This proposed section also would require persons with supervisory screening duties to have initial and recurrent training that includes leadership and management subjects. All checkpoint screening supervisors (CSS's) and shift supervisors would be required to take an annual class in leadership training, which would be a new requirement. Initial training would be for 8 hours, with recurrent training lasting 3 hours. Class size would be a maximum of 20 persons per class. This proposed section would generate costs. Over ten years, this proposal would cost \$1.99 million (net present value, \$1.39 million).

Total ten year costs for § 111.205 are \$9.15 million (net present value, \$6.39 million), of which the costs to SC's would total \$8.29 million (net present value, \$5.78 million), to DSC's would total \$217,500 (net present value, \$153,700), and to ISC's would total \$637,600 (net present value, \$450,800).

#### 111.207 Disclosure of sensitive security information.

This proposed section would prevent the release of sensitive security information (SSI) to screener trainees before their employment history has been verified. The FAA does not believe that this prevention would result in new costs, but requests comments from screening companies whether any new costs would result. The FAA requests that all comments be accompanied by clear documentation.

#### 111.209 Screening company management

Proposed § 111.209 would require all companies providing screening services to have qualified management and technical personnel; this includes the security screening coordinator (SPC), CSS or Screener in charge (SIC) at each screening locations. All screening managers, SPC's, and anyone in a position to exercise control over screening would have to meet specific qualification requirements in

the areas of training and experience. This proposed section would require that each screening company have sufficient qualified management and technical personnel to ensure the highest degree of safety in its screening.

Each company performing screening would be required to have a SPC. The SPC would be the focal point for FAA communication on security related issues and communication. The SPC would need to have completed initial screener training before being appointed. In almost all cases, the SPC already would have had such training. For the purpose of this analysis, the costs of training any SPC who has not been trained will be subsumed in their annual salary. However, all SPC's would be required to take an annual class in leadership training, which would be a new requirement. While the costs of this training would also be subsumed into their annual salary, these classes would generate instructor costs. Initial training would be for 8 hours, with recurrent training lasting 3 hours. Class size would be a maximum of 20 per class.

While all SC's would be required to fill this position, the FAA does not assume that it would be a full time position at all SC's. At smaller companies, the persons who fills the SPC positions could perform SPC duties on a part time basis while performing other duties at other times. Table 2 shows the current breakdown of companies by the number of screeners, the amount of time that the FAA assumes that the SPC would need to spend at this position, and the number of existing SC's in each category:

TABLE 2 - SPC Requirements by Size of Screening Company		
Number of screeners	Amount of time the SPC would need to spend at this position	Number of existing SC's
1,000+	Full time	4
50 - 999	1/2 time	20
< 50	1/4 time	42

The FAA calls for comments from SC's as to the number of companies that already have personnel performing these SPC duties, and if the assumed amount of time that the SPC would need to spend on their duties, referred to in Table 2, is accurate. The FAA requests that all comments be accompanied with clear documentation.

The FAA bases cost calculations on the assumptions that each of the current companies would remain in the same categories over the next ten years and that any new companies would have fewer than 50 screeners, requiring the person in this

position to spend only 1/4 of their time as SPC. For these new companies, all other SPC costs for requirements discussed in this analysis, such as training, would be included in their annual salary.

Over ten years, the SPC requirement of \$ 111.209 would cost the SC's \$18.48 million (net present value, \$12.79 million).

The 15 DSC's would require a SPC. The average DSC would need 3 screeners per screening location; with an average of 18 screening locations per DSC (as shown in Table 1), the average DSC would need 54 screeners plus the SPC, or 55 employees. Based on the information in Table 3, this would require a half time SPC. Over ten years, the SPC requirement of \$ 111.213 would cost the DSC's \$4.96 million (net present value, \$3.49 million).

The 264 ISC's would also need to have a SPC. The average ISC would need 3 screeners per screening location; with an average of 3 screening locations per ISC (as shown in Table 1), the average ISC would need 9 screeners plus the SPC, or 10 employees. Based on the information in Table 2, this would require a quarter time SPC. Over ten years, the SPC requirement of \$ 111.213 would cost the ISC's \$43.83 million (net present value, \$30.79 million).

Total ten year costs for \$ 111.209 would be \$67.27 million (net present value, \$47.06 million), of which the cost to SC's would be \$18.48 million (net present value, \$12.79 million), to DSC's would be \$4.96 million (net present value, \$3.49 million), and to ISC's would be \$43.83 million (net present value, \$30.79 million).

#### 111.211 Screening company instructor qualifications.

Proposed \$ 111.211 would require screening company instructors to have a minimum of 40 hours as a security screener making independent judgments. These instructors would also need to pass FAA screener knowledge-based and performance tests to demonstrate satisfactory performance of the security screening procedures appropriate to that course of training. Each instructor should also be knowledgeable about the objectives and standards of each course taught. This proposed section would not results in additional costs. The costs and requirements for passing the FAA screener knowledge-based and performance tests are covered in proposed \$\$ 111.213 and 111.215.

111.213 Training and knowledge of persons with screening-related duties.

Proposed § 111.213 would specify the requirements for screening companies regarding training programs and knowledge of subject areas. No screening company would be permitted to use any person to perform any screening-related duties unless that person had received training as specified in its approved SSSP.

All screening companies would need to submit their training programs to the FAA for approval; each training program should address and include the applicable material contained in the security program for training and testing standards.<sup>42</sup> Screening companies would be required to have training programs for all screeners and CSS's. This requirement would not have any additional costs as the training program is part of the ops specs, the costs of which were discussed in § 111.113, 'Operations specifications: form, content, and availability.'

The FAA proposes to create performance-based training where screening companies would be expected to train their screening personnel to meet specific testing standards. The FAA proposes to do away with the current training requirements and screening companies may train their screeners using FAA-approved computer based training (CBT) programs. Screening companies would be responsible for ensuring that their trainees are able to pass FAA knowledge-based and x-ray interpretation tests before and after their on-the-job training, and that screening personnel meet performance standards thereafter. The potential benefits of CBT are self-paced learning, enhanced opportunities for realistic practice, reduced overall training time, combined training and performance testing, and consistency of instruction. All screeners would need to undergo recurrent training annually and pass a computer-based test at the end of that training, which would be similar to their initial computer-based test.

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<sup>42</sup> Examples of training standards would be demonstrating effective handwanding and manual search techniques, demonstrating a variety of improvised explosive device configurations, and briefing trainees on the definition of sensitive security information (SSI) and why SSI must be protected.

Screeners are now required to complete 12 hours of initial classroom training, 40 hours of on-the-job training (OJT), and no specified amount of recurrent training every 12 months. The 'CA assumes that, under these proposals, screeners for SC's would undergo 16 hours of initial training. This would reflect the FAA's expectation that training would increase. These proposals would add 4 hours to screener training. The amount of time needed for OJT would remain unchanged. The FAA assumes recurrent training at 8 hours.

Where screening is limited only to cargo (such as for DSC's and ISC's) the testing standards would emphasize different aspects of training; the amount of time needed for this training would be less than for the screening of persons with their carry-on luggage. The FAA would provide model training programs and/or endorse outside training programs for the different groups of screening personnel. For DSC's and ISC's, the FAA assumes that screeners would need 4 more hours for initial training and 6 hours for recurrent training.

The SC's, DSC's and ISC's would be responsible to ensure that individuals performing screening-related functions have knowledge of all information needed to perform their duties. Screening companies would ensure that trainees have this knowledge by requiring that the trainees pass the FAA computer-based test before they can progress to OJT. The costs for this test are included in the aforementioned training time.

Over ten years above and beyond the SPC's time, total training costs sum to \$7.78 million (net present value, \$5.41 million), of which the costs to the SC's equal \$6.55 million (net present value, \$4.56 million), to the DSC's equal \$427,400 (net present value, \$297,400), and to the ISC's equal \$1.25 million (net present value, \$871,800).

#### 111.215 Training tests: requirements.

Proposed § 111.215 would require that all screening personnel pass computerized tests at the conclusion of their initial training, and that the tests be administered by carrier personnel. These tests are designed to help ensure that screener trainees have achieved the knowledge and skills that they need to perform their jobs effectively. Since most airport screeners conduct screening of persons,

carry-on items, and checked baggage, the FAA envisions designing one test to address all of these types of screening. The specific testing requirements would be outlined in the SSSP.

Each screening company would be required to use an FAA-designed computer-based test to administer FAA screener tests. This proposal would standardize the screener testing process, provide relevant test questions for each screener, and provide realistic x-ray images for the x-ray interpretation portion of the test.<sup>43</sup> The FAA is currently developing these automated tests based on the existing screener training guidelines, the future testing standards, and research in these areas. The tests are being designed to be easily loaded on standard personal computers to minimize costs and maximize flexibility.

The FAA estimates that this test would take an hour, both for the initial and recurrent tests; the time required to take the test is included as part of the initial and recurrent training discussed and costed out in \$ 111.213. In addition, the FAA would require that an additional one hour test be taken after the OJT. Screening personnel would have to successfully pass this subsequent test before they receive a certification statement in their training and qualification records. The FAA envisions that this on-the-job training test would be similar to the image interpretation portion of the FAA screener readiness test, but may require a higher score. Over ten years, the total cost of this test for all screeners, CSS's, and shift supervisors sums to \$1.53 million (net present value, \$1.07 million). Costs to SC's sum to \$1.44 million (net present value, \$1.00 million), to DSC's sums to \$23,900 (net present value, \$17,700), and to ISC's sums to \$70,200 (net present value, \$52,000).

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<sup>43</sup> Currently, air carriers and/or SC's can design and administer their own written tests for screeners. (Persons who screen cargo are currently not required to pass any tests demonstrating their knowledge or abilities.) The tests usually consist of approximately 20 basic multiple choice questions; the air carrier and/or SC have latitude in choosing the subject-matter to be addressed and in designing the difficulty of the questions. The performance-based portion of the test often consists of x-ray interpretation scenarios using overhead slides. This increases opportunities for cheating because many screener trainees receive the same version of the test and because the class as a whole is usually interpreting the x-ray images at the same time.

The carriers would need to purchase computer equipment so that screeners could take these computer-based tests. The costs for the purchase of the computer-based test and the cost and maintenance of this equipment are covered in proposed §§ 108.201(j) and (k); 109.203(b) and (c); and 129.25(l) and (m), 'Responsibility of carriers and screening companies.'

This proposed section would also require each screening company to ensure that each initial and recurrent test is monitored by an employee of the carrier for which it screens.<sup>44</sup> The screening company would be responsible for informing the applicable carrier(s) that it planned to administer a test to screener trainees. The applicable carrier(s) would be responsible for providing a test monitor upon request.

This proposed requirement would entail costs for SC's. On average, each SC screens for 12 direct air carriers.<sup>45</sup> Each SC would need to write letters to the applicable air carrier requesting the employee to monitor the test. The FAA assumes that it would take a clerk at the SC 10 minutes to write each letter. Mailing costs for each letter would be \$0.33. The FAA also assumes that each SC at each airport would give this test once a week each week during the year.<sup>46</sup> The costs for the air carrier to process the letter and ensure that an employee would be present to monitor the test are covered in proposed §§ 108.229, 109.205, and 129.25(n), 'Monitoring of screener training tests.'

For those direct and indirect air carriers that choose to screen cargo, there would be no costs under this proposed section. Since an employee of that carrier would monitor the test, no letter would have to be sent requesting that employee's presence. The only costs to these carriers would be that employee's time serving as the monitor; this cost will be covered in proposed §§ 108.229, 109.205, and 129.25(n), 'Monitoring of screener training tests.'

Total ten year costs for this proposed section sum to \$3.44 million (net present value, \$2.38 million), of which the costs to SC's sum to \$3.34 million (net present value,

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<sup>44</sup> The test after OJT is finished would not need to be monitored.

<sup>45</sup> Based on information from AAIRS, November 1998.

<sup>46</sup> This assumption would most likely overstate costs for there would probably be weeks at certain airports when no test would be needed.



\$2.31 million), to DSC's sums to \$23,900 (net present value, \$17,700), and to ISC's sums to \$70,200 (net present value, \$52,000).

111.217 Training tests: cheating and other unauthorized conduct.

Proposed § 111.217 would emphasize that cheating is not permitted on any knowledge-based or performance training test administered to or taken by any screening personnel. Any instances reported to the FAA involving allegations of screening companies or screening company employees permitting cheating on tests would be investigated, and those persons involved in the incidents could be held individually accountable. If an instance of cheating occurred, the test monitor would be required to declare the test invalid and inform appropriate screening company management of the incident. FAA special agents would also regularly monitor screening company testing.

The FAA expects few, if any, cases of cheating to occur, and hence, expects costs to be 'de minimus'. The FAA calls for comments on whether this proposed section would impose any costs and requests that all comments be accompanied with clear documentation.

111.219 Screener letter of completion of training

To increase screener professionalism, under proposed § 111.219, SC's, DSC's, and ISC's would issue letters of completion of training to screeners upon their successful completion of approved courses of training, such as initial, recurrent, CSS and screener-in-charge training. These letters of completion would provide personnel with official records of their specific training accomplishments. The FAA anticipates that screeners with evidence of training could move more smoothly between employers and that they would be valued more highly because they would not require as much training as new hires. Most importantly, the FAA believes that requiring screening companies to issue letters of completion to screeners for successful completion of training would help enhance professionalism in this essential security job.

Every company that provides screening services would prepare a letter of completion for each of their screeners

(including screener supervisors) who completes either initial or recurrent training. The FAA assumes that every screener would go through either initial or recurrent training each year. In addition, the FAA assumes that some screeners would avail themselves to additional training, such as becoming proficient on an EDS.<sup>47</sup> The FAA estimates that 10 percent of screeners would undergo additional training each year. Hence, for SC's, the total number of letters in any given year would equal the total number of screeners times 1.1, while for DSC's and ISC's the total number of letters would equal the total number of screeners. The FAA estimates that it would take a clerk 15 minutes to complete the paperwork and to prepare the letter for each employee. Over ten years, the costs sum to \$1.38 million (net present value, \$963,600), of which the costs for SC's would sum to \$1.21 million (net present value, \$845,800), DSC's would sum to \$42,700 (net present value, \$30,000), and ISC's would sum to \$125,100 (net present value, \$87,900).

#### 111.221 Screener and supervisor training records

Under proposed § 111.221, companies that provide screening services would be required to forward screener training records to another screening provider when requested by the screeners. These companies would also be required to return screener records to the contracting carrier in the event the screening provider ceases operations at a site. This improvement would help increase each screener's control over their own mobility, and would resolve current problems relating to control of screener documents.

The FAA does not anticipate any costs stemming from the requirement to return screener records to the contracting carrier in the event the screening provider ceases operations at a site, and to provide them to the new SC. The records would be maintained locally for FAA inspection. They would need to be provided to the new SC by the carrier but in reality the records would probably never be moved. The new company would most likely occupy the same space the old company left, and if not, it would just be a matter of moving files from one cabinet to another.

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<sup>47</sup> Because only SC's would have requirements for EDS's while DSC's and ISC's do not, letters for additional training would only apply for screeners for SC's.

Screening companies would be required to maintain screener records of training, testing, and certification for 180 days after a screener leaves that company. This record maintenance would not result in additional costs. SC'S currently do hold such records for at least 180 days. Direct and indirect carriers are already required to maintain all employee records for 180 days, so DSC's and ISC's would not encounter additional costs.

The FAA estimates that 2 percent of screeners, CSS's, and site supervisors would request records transfers annually. The FAA assumes that the SPC would need half an hour and a clerk would need an hour to prepare the screener's records for transmittal with copying and mailing charges of no more than \$5 per transferee. The FAA also estimates that it would take a clerk, at the receiving screening company, 15 minutes to process and file the transferred screener's records. Ten year costs above and beyond the SPC's time sum to \$151,300 (net present value, \$105,500), of which the costs for SC's would sum to \$131,400 (net present value, \$91,500), DSC's would sum to \$5,100 (net present value, \$3,600), and ISC's would sum to \$14,900 (net present value, \$10,500).

#### 111.223 Automated performance standards.

Under proposed § 111.223, each screening company would be required to use a threat image projection (TIP) system for each x-ray and EDS, so that screening company performance can be measured.<sup>48 49</sup> Usage procedures, log on/log off

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<sup>48</sup> It is important to note that this requirement does not require SC's to physically install the TIP systems on the x-ray systems that they operate. Rather, it would require screening companies to operate the TIP systems that the carriers have installed.

<sup>49</sup> TIP systems are currently being deployed and tested on both x-ray and EDS machines. The TIP systems use two different methods of projection, Fictional Threat Image (FTI) and Combined Technology Image (CTI). FTI superimposes a threat image from an extensive library of images onto the x-ray image of actual passenger baggage being screened. The image appears on the monitor as if a threat object actually exists within the passenger's bag. The screener can check whether the image is an actual threat image before requesting that the bag be further screened. The CTI is a prefabricated image of an entire threat bag and can also be electronically inserted onto the display monitors. For both types of images, screeners are immediately provided with feedback on their ability to detect each threat. TIP exposes screeners to threats on a regular basis, in part to train them to become more adept at detecting threats, and in part to enhance their vigilance. TIP allows the FAA to expose screeners to the latest potential threats, and should allow the

procedures for each screener using individual identification numbers, and any data collection requirements would be specified in each screening company's SSSP. Proper operation of TIP units and data collection would be critical to accurately measuring the performance of screening companies.

Each screening company would be required to meet the performance standards set forth in its SSSP. The FAA would ultimately establish a performance range that all screening companies would be required to fall within to be considered effective at detecting possible threats. If a screening company were to fall short of the minimum performance standards, it would be subject to additional security measures depending on the circumstances involved, and could lose its FAA certification if its performance did not improve. The FAA expects that each screening company would regularly monitor its company's overall performance, as well as its individual screeners' performance, and take corrective actions as necessary.

The FAA also expects each carrier that contracts with a screening company to regularly monitor that screening company's performance. These oversight responsibilities would be outlined in each carriers' security program and are costed out in § 111.117, 'Oversight by air carrier, foreign air carrier, or indirect air carrier.' The FAA would collect and analyze screening company performance data regularly to determine whether screening companies and carriers were in compliance with the required performance standards.

The FAA costed out two different scenarios for collecting the TIP-related data, and is using the more costly of the two in calculating the total costs of this proposed rule. The first of these two scenarios, which is more costly, would involve FAA field agents visiting each screening site, downloading the data onto a floppy disk, and then mailing it to the FAA. The second of these two scenarios would involve a network and cable hookup, which would enable the FAA to dial in and download the data electronically from regional locations; a description of this scenario can be found in the Appendix under Exhibit 1.

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FAA to determine what elements make a screener more effective, such as training methods and experience levels.

In the first of these scenarios, FAA field agents would physically visit each screening site to download the data four times a year. Currently, FAA field agents typically visit Type A(>2) airports on a quarterly basis and other airports on an annual basis, so the travel time and expenses would only occur when these agents would have to visit Type A(<2) and B airports (which have 367 of the 821 screening sites),<sup>50</sup> as well as all DSC and ISC screening sites,<sup>51</sup> three times a year. Once the data is downloaded onto the floppy disk, field agents would incur postage expenses to mail the data to their respective FAA regional offices for analysis.

For the additional trips, the FAA assumes that a field agent would spend, on average, a total of 10 hours per trip with travel costs averaging \$200 per visit. Mailing costs for the disks (and any additional supporting material) would be no more than \$5. The annual costs to obtain data from SC sites would be \$533,500, from DSC sites would be \$384,400, and from ISC sites would be \$1.13 million. Ten year costs would sum to \$20.46 million (net present value, \$14.37 million); these costs would be borne solely by the FAA.

The FAA proposes to require that TIP systems initially be installed at the screening locations with the highest potential for threats." The FAA would then phase in requirements to install TIP systems at the remaining U.S. screening locations where property is screened. The process of phasing in requirements for TIP systems would allow the FAA to promptly address the higher threat airports, and allow realistic timeframes for updating older systems to make them TIP-compatible. The costs for acquiring TIP installed x-ray systems are covered under proposed §§ 108.205; 109.207; and 129.26, 'Use of x-ray systems.'

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<sup>50</sup> See '§§ 108.201(j) and (k); 109.203(b) and (c); and 129.25(l) and (m) - Responsibility of carriers and screening companies' below for a description of Type A(>2), A(<2), and B airports.

<sup>51</sup> It is very likely that some of the DSC and ISC screening sites would be at Type A(>2) airports, and so the field agent would already be going to this airport on a quarterly basis. However, since the FAA does not know where the DSC and ISC screening sites would be, the FAA is being conservative in calculating these costs and assuming that none of these sites are at Type A(>2) airports.

<sup>52</sup> The specific screening location timetable would be incorporated into each air carrier's ACSSP.

Total ten years costs to Subpart C are \$110.63 million (net present value, \$77.39 million).

D. Incremental Costs of Conforming Amendments to Parts 108, 109, 129, and 191

The FAA proposes to add to or amend the following existing sections for §§ 108, 109, 129, and 191 so that they can conform to the proposed requirements in part 111.

§§ 108.5 and 109.5 - Inspection authority

The changes to proposed §§ 108.5 (current \$ 108.27) and 109.5 would require that each air carrier also allow FAA special agents,<sup>53</sup> at any time or place, to make the requisite inspections or tests to determine compliance of the screening company and the air carrier with the new part 111 and its SS3P. The costs of these proposed changes have been reflected in the costs for \$ 111.5, 'Inspection authority.'

§§ 108.103, 109.103, and 129.25(c) - Security Program Form, Content, and Availability

Proposed §§ 108.103 (current \$ 108.7), 109.103, and 129.25(c) set forth the form, content and availability of security programs required for direct air carriers, ISC's, and FAC's, respectively. These proposed sections would add two new items to what would be required in each air carrier's security program: a description of how the air carrier would provide oversight to each screening company performing screening on its behalf and a description of how the air carrier would evaluate and test the performance of screening.

ISC'S would also need to add two additional requirements to their IACSSP. These two requirements include: the procedures, description of the facilities, and equipment used to perform screening functions; and the procedures and a description of the equipment used to comply with the requirements regarding the use of x-ray systems.

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<sup>53</sup> Special Agents are those FAA employees who are authorized to conduct inspections of airport and air carrier security operations and who must possess and present FAA-issued credentials.

These proposed changes to §§ 108.103, 109.103, and 129.25 would impose administrative time costs on the different carriers. Each of the carriers would incur costs for the time that the GSC (or designee) and a clerk would need to write up each of these new sections. These new sections would need to be approved by the FAA, and carriers would incur additional costs if the FAA requires modifications.

The FAA assumes that it would take the GSC (or designee) and a clerk, 12 and 20 hours, respectively, to write up each new section. The FAA assumes that 19 percent of these sections would be returned; the FAA assumes that the GSC (or designee) and a clerk would each need 4 hours to make the modifications. Assuming mailing costs per package of \$5.00, ten year costs sum to \$15.15 million (net present value, \$10.64 million), with costs to direct air carriers summing to \$2.77 million (net present value, \$1.95 million), to ISC's summing to \$9.70 million (net present value, \$6.81 million), and to FAC's summing to \$2.70 million (net present value, \$1.88 million).

In addition, the FAA estimates that a clerk would spend an additional hour to either photocopy, write, or transfer documentation for each of the additional elements discussed above. Direct air carriers and FAC's would need to add two sections, taking an additional two hours, while ISC's would need to add four sections, taking an additional four hours. Further, the FAA assumes these changes are expected to add 30 minutes to the average annual document maintenance cost for direct air carriers and FAC's and an additional hour for ISC's. The total cost of these changes over 10 years, is \$121,300 (net present value, \$93,300), with costs to direct air carriers summing to \$22,100 (net present value, \$17,000), to ISC's summing to \$77,800 (net present value, \$59,800), and to FAC's summing to \$21,400 (net present value, \$16,400).

The proposed changes to § 109.103 would also require ISC's to state in their programs that upon receipt of an approved security program or security program amendment from the FAA, the ISC would acknowledge receipt of it in writing and that the written statement would be signed by the a representative of the ISC.

The cost structure for this proposed change to § 109.103 is the same as for proposed § 111.105, 'Security program: form, content, and availability.' The FAA assumes that it would

take a clerk no more than 10 minutes to perform this task. Assuming mailing costs of \$0.33 per amendment and assuming an average of one and a half amendments per year from the FAA, ten year costs total \$14,800 (net present value, \$10,400).

Total ten year costs for these sections total \$15.29 million (net present value, \$10.74 million), with total costs for direct air carriers being \$2.79 million (net present value, \$1.96 million), for ISC's being \$9.79 million (net present value, \$6.88 million), and for FAC's being \$2.70 million (net present value, \$1.90 million).

#### §§ 109.105 and 129.25(e) - Approval and amendments of security programs

The proposal would modify the current regulatory text of the proposed §§ 109.105 (current § 109.5) and 129.25(e) to clarify the requirements and make them consistent with the organization of proposed § 108.105 (current § 108.25). Under these proposals, the only substantive change would affect ISC's, as ISC's would be allowed to petition the FAA to reconsider FAA amendments if the petitions are submitted no later than 15 days before the effective dates of the FAA amendment.

The FAA assumes an average of one and a half amendments per ISC per year from the FAA,<sup>54</sup> and assumes that it would take a clerk no more than 10 minutes to perform the task of appealing amendments to the FAA. Assuming mailing costs of \$0.33 per amendment and assuming that each ISC petitions the FAA on all of these amendments, ten year costs total \$14,800 (net present value, \$10,400).

#### §§ 108.201(h), 109.203(a), and 129.25(k) - Certification requirement

Proposed new §§ 108.201(h), 109.203(a), and 129.25(k) would require that each direct air carrier (including DSC's), ISC, and FAC, respectively, that conducts screening of persons and property must hold a screening company certificate

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<sup>54</sup> Similar to what is described in § 111.107, 'Security program: approval and amendments,' the FAA assumes an average of 3 amendments per year per carrier, half from the carrier and half from the FAA.



issued under part 111, or use another screening company certificated under part 111 to conduct such screening.

The costs for those DSC's and ISC's choosing to screen cargo to obtain screening company certificates are covered in the discussions of proposed § 111.109, 'Screening company certificate.' The FAA does not expect any FAC to conduct their own screening, so this proposed section would impose no costs on FAC's.

§§ 108.201(i) and (j); 109.203(b) and (c); and 129.25(l) and (m) - Responsibility of carriers and screening companies

These proposed new sections would require each carrier to ensure that each screening company's actions are consistent with part 111, the screening company's SSSP, and the screening company's ops specs; these oversight responsibilities would be listed in the ACSSP, IACSSP, and MSP. The cost for this oversight responsibility and these audits are covered in § 111.117, 'Oversight by air carrier, foreign air carrier, and indirect air carrier.'

However, each carriers must expend resources to amend its security program to include these new oversight responsibilities. The FAA would draft these amendments, which would be subject to notice and comment opportunities, and then mail them to the carriers with the usual instructions on inserting the changes in their current security programs.

The FAA assumes that 19 percent of all carriers would comment on these amendments. As with proposed § 111.107, the FAA estimates that it would take each carrier an average of 48 hours to respond; this includes 16 hours for the GSC (or designee) and 32 hours for a clerk along with postage of no more than \$5. Once the carriers receive the finalized amendment, the FAA estimates that it would take no more than an hour for a clerk to include it in their security program.<sup>55</sup> In addition, each carrier would need to spend an average of two hours per year on document maintenance for this part of their security program. Ten year costs sum to \$326,500 (net present value, \$250,500) with costs for direct air carriers summing to \$87,900 (net present value,

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<sup>55</sup> The costs for FAA personnel to prepare these amendments, review the comments, finalize the amendments, and send them to the air carriers are included in the costs for proposed § 111.105, 'Inspection Authority.'

\$67,500), for ISC's summing to \$153,600 (net present value, \$117,800), and for FAC's summing to \$85,000 (net present value, \$65,200).

Carriers would also have to purchase and maintain computer equipment required to train screeners (as discussed under proposed §§ 111.213 and 111.215). All direct air carriers would need to provide equipment for the SC's that are screening for them. In addition, both DSC's and ISC's that are screening cargo would be required to have equipment to test the cargo screeners. The equipment to be purchased and maintained<sup>56</sup> is listed below:

- All SC's would require computers estimated to cost \$1,200 each; these computers would need to be replaced every four years;
- The specific test would come on a CD-ROM and would be updated every two years. One CD-ROM would be needed for each computer; the first one for each SC presence would cost \$1,000 while additional discs per screening presence would cost \$1;<sup>57</sup>
- Some existing computers do not have CD-ROM readers; the FAA estimate; that it would cost \$100 to add this capability to these computers;
- Certain locations would need their computers linked together using a local area network (LAN). The FAA estimates that LAN installation costs (including personnel costs) would be \$15,000; and
- Printers for use with these LAN networks are estimated to cost \$1,500 while printers for use with stand alone computers are estimated to cost \$1,200; printers would need to be replaced every 5 years.

The amount and type of equipment that direct air carriers would need to provide to SC's would vary by the size of the airport that the screening is taking place at. The FAA is using the following terminology for the different size airports: Type A(>2), Type A(<2), and Type B.<sup>58</sup> The

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<sup>56</sup> Annual maintenance costs for all equipment is assumed to be 10% of the purchase price.

<sup>57</sup> Source: The Office of Civil Aviation Security (ACS), FAA, October 1998.

<sup>58</sup> These airport designations were used in Draft Regulatory Evaluation, Initial Regulatory Flexibility Determination, and Trade Impact Statement - Notice of Proposed Rulemaking - Part 107 - Airport Security, Office of Aviation Policy, Plans, and Management Analysis, FAA, July 1995. The differentiation between airport types is as follows:

specifics as to how much equipment would be needed be described in each air carrier's ACSSP. Table 3 shows the amount and type of equipment that would be needed per airport type for screening checkpoints used by both direct air carriers and FAC's, or solely by direct air carriers:

TABLE 3 - SCREENING COMPANY EQUIPMENT REQUIREMENTS <sup>59</sup>						
Airport Type	Number of Airports	Number of SC Presences	Total Computer Requirement	CD-ROM "Upgrade" for Computers	LAN Installation	Printers
A(>2)	80	159	1,302	606	Yes	159
A(<2)	190	219	560	0	Some	219
B	147	147	147	0	No	147
TOTAL	417	525	2,009	606	---	525

The FAA is in the process of providing one SC per each Type A(>2) airport with the computers, LAN installation, and printers for computer based training; this process is expected to be completed before the proposed rule would go into effect. In addition, the FAA would purchase the initial CD-ROM-based tests and would most likely pay to have CD-ROM capability added to existing FAA-provided computers. The air carriers contracting with these SC's would be responsible for all maintenance and replacement costs.

As shown in Table 3, a total of 2,089 computers would be needed for computer based testing. For purposes of this analysis, the FAA assumes that this number would stay constant for the ten year period examined by this analysis.

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- Type A (>2) airports are regularly served by scheduled passenger aircraft operations having airplanes with a passenger seating configuration of greater than 60 seats, are subject to screening programs defined in the current § 108.5, are required to have an Airport Security Program (ASP) under the current § 107.3(b), and screen at least 2 million people per year.
  - Type A(<2) airports have the same requirements as Type A(>2) airports, but they screen under 2 million people per year.
  - Type B airports are regularly served by scheduled passenger aircraft operations having airplanes with a passenger seating configuration of greater than 31 and fewer than 60 seats, are subject to screening programs defined in the current § 108.5, and are required to have an ASP under the current § 107.3(g).

Certain small airports practice what is referred to as 'reverse screening.' Under this practice, passengers are not screened as they board aircraft, but are screened when they deplane, usually at a much larger airport. Hence, there would be no SC costs at these airports. Currently, 3 airports, all Type B airports, practice 'reverse screening'.

<sup>59</sup> Source: The Office of Civil Aviation Security, FAA, October 1998

By 2000, the FAA anticipates providing 594 computers to SC's at Type A(>2) airports for computer based training and plans to provide CD-ROM readers for 606 computers; direct air carriers would need to purchase the remaining 1,175 computers. New replacement computers would need to be purchased by direct air carriers, at all sites, in 2004 and 2008, and these air carriers would pay for maintenance on all computers over this ten year period. Total ten year costs sum to \$8.64 million (net present value, \$6.04 million). FAA costs sum to \$763,200; since these purchases would occur before 2000, they are considered sunk costs and are not included in the ten year costs.

A total of 2,009 CD-ROM's would be needed on an every other year basis. In 2000, the FAA would provide CD-ROM's for 594 computers with direct air carriers purchasing the remainder; in subsequent years, direct air carriers would purchase all necessary disks. Total ten year costs sum to \$2.55 million (net present value, \$1.84 million); FAA sunk costs sum to \$80,500.

LAN's would be needed to connect the computers at all Type A(>2) and at selected A(<2) airports. The FAA would pay for these networks to be set up at 80 Type A(>2) sites, while direct air carriers would pay to have them set up at 79 Type A(>2) sites and 61 Type A(<2) sites. Direct air carriers would pay for all LAN maintenance costs. Total ten year costs sum to \$5.40 million (net present value, \$4.28 million); FAA sunk costs sum to \$1.20 million.

All testing sites would need printers. The FAA would purchase 80 printers for use on LAN's while DSC's would need to purchase 140 printers for use on LAN's and 305 printers for use with stand-alone computers. Direct air carriers would pay for all annual maintenance as well as all replacement printers in 2005. Total ten year costs sum to \$993,000 (net present value, \$757,600) for the LAN-dedicated printers and \$961,500 (net present value, \$733,400) for the non-LAN-dedicated printers; FAA sunk costs sum to \$120,000.

Total ten year direct air carrier costs for providing and maintaining computers for CBT for SC's sum to \$18.65 million (net present value, \$13.73 million); FAA sunk costs sum to \$2.16 million.

Table 4 shows the amount and type of equipment that would be needed per airport type for screening checkpoints used solely by FAC's:

TABLE 4 - SCREENING COMPANY EQUIPMENT REQUIREMENTS FOR FAC's <sup>60</sup>						
Airport Type	Number of Airports	Number of SC Presences	Total Computer Requirement	CD-ROM "Upgrade" for Computers	LAN Installation	Printers
A(>2)	5	7	78	6	Yes	7
A(<2)	1	1	2	0	Some	1
B	0	0	0	0	No	0
<b>TOTAL</b>	6	A	<b>80</b>	6	---	<b>8</b>

FAC's would purchase 80 computers in 2000, new replacement computers in 2004 and 2008, and pay for maintenance costs on all computers over the analysis period, with total ten year costs sum to \$376,800 (net present value, \$271,100). A total of 80 CD-ROM's would be needed on an every other year basis, with total ten year costs sum to \$40,400 (net present value, \$29,300).

LAN's would be needed to connect the computers at 7 sites, all of them Type A(>2) airports. Total ten year costs sum to \$240,000 (net present value, \$196,400). Seven printers would be needed at these LAN sites, with ten year costs summing to \$31,500 (net present value, \$24,200), while one printer would be needed for a stand-alone computer, with ten year costs summing to \$3,600 (net present value, \$2,800).

Total FAC ten year costs for providing and maintaining computers for CBT for screening companies sum to \$692,300 (net present value, \$523,800).

Meanwhile, DSC's and ISC's would have additional costs. The FAA assumes that each of these air carriers already has the necessary computer equipment at each of their screening locations; these existing computers are being used for a myriad of regular day-to-day applications. The FAA also assumes that these computers have the ability to read CD-ROM's, so the only additional costs would be for the CD-ROM discs that contains the annual test. As above, these costs would occur every other year; ten year costs for the DSC's sum to \$76,300 (net present value, \$55,400), and for the ISC's sum to \$1.32 million (net present value, \$960,400).

<sup>60</sup> Source: The Office of Civil Aviation Security, FAA, October 1998

Total ten year costs for these proposed sections sum to \$21.07 million (net present value, \$15.52 million), with total costs for direct air carriers and DSC's summing to \$18.82 million (net present value, \$13.86 million),<sup>61</sup> for ISC's summing to \$1.48 million (net present value, \$1.08 million), and FAC's summing to \$777,200 (net present value, \$589,000). FAA sunk costs sum to \$2.16 million.

§§ 108.201(k); 109.203(d); and 129.25(n) - Responsibility of Carriers

Each direct air carrier, indirect air carrier, and FAC would be required to maintain at least one complete copy of each of its screening companies' security programs at its principal business office, and have available complete copies or the pertinent portions of its screening companies' security programs at each location where the screening companies conduct screening for that carrier. The costs for making these copies was covered under proposed § 111.105. In addition, each carrier would be required to restrict availability of information in these SSSP' to those persons with an operational need-to-know in accordance with § 191.5.

§§ 108.201(l) and 129.25(o) - Public Notification Regarding Additional Security Measures

Proposed §§ 108.201(l) and 129.25(o) would be added to require that each carrier required by the FAA to implement additional security measures notify the public of the increased measures by posting signs at affected locations. The FAA expects few, if any, cases of where air carriers would need to post signs, and hence, expects costs to be 'de minimus'. The FAA calls for comments on whether this proposed section would impose any costs and requests that all comments be accompanied with clear documentation.

§§ 108.201(m) and (n) - Responsibility of Carriers

Proposed § 108.201(m) would state that although all screening-related requirements have been relocated to part 111, certain requirements still apply at screening locations

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<sup>61</sup> Total costs for direct air carriers sum to \$18.74 million (net present value, \$13.80 million), while total costs accruing only to DSC's sum to \$76,300 (net present value, \$55,400).

outside the United States at which air carriers have operational control over screening. Specifically, that do have operational control over screening outside the United States would carry out and comply with all relevant sections of part 111, to the extent allowable by local law. This proposed section would not impose additional costs because to the FAA's knowledge, there are currently no foreign locations where part 108 air carriers have operational control over screening; however, this proposal includes these requirements in the event of such a situation.

#### SS 108.205; 109.207; and 129.26 - Use of x-ray Systems

Proposed § 108.205 (current § 108.17) would be amended to require that air carriers use x-ray systems in accordance with their ACSSP and their screening companies' SSSP.<sup>62</sup> Each air carrier would need to ensure that each x-ray system it uses has a TIP system that meets the standards set forth in its security program.

As TIP is a new system, some x-ray systems have not been designed to run them. Accordingly, many x-ray machines at airports would need to be replaced with equipment that is TIP compatible.<sup>63</sup> The FAA assumes that the basic cost of a machine is \$37,900, while the TIP software and related equipment costs \$6,800, so that each TIP-equipped machine would cost \$44,700. Annual maintenance on the TIP-related hardware as well as software upgrades are estimated at \$680 per year.<sup>64</sup> The system being replaced would have some resale value for non-aviation purposes such as industrial security. The FAA estimates the current average resale value per system at \$5,000. Because the average life span of an x-ray machine exceeds 10 years, the FAA is not considering any x-ray replacement costs for this analysis.

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<sup>62</sup> Both programs are included here because the air carrier would be required to ensure that the x-ray systems meet the required standards and requirements. The air carrier would also be responsible for ensuring that its screening companies comply with the x-ray related requirements that would be relocated to the SSSP.

<sup>63</sup> To be conservative, the FAA will cost out the replacement of all x-ray system in this analysis.

<sup>64</sup> Air carriers are already doing normal maintenance on the x-ray machines, so only the additional maintenance costs, due to this proposed rule, would be on TIP.

The FAA anticipates purchasing 548 such systems and deployed them at specific airports by the end of 1999. There are a total of 1,380 x-rays at checkpoints at all U.S. airports, so direct air carriers would need to replace an additional 827 machines and foreign air carriers would need to replace an additional 5 machines.<sup>65</sup> The FAA proposes that the deployment of these machines be phased in over a 5 year period based on the airport Type involved; the specifics of this timetable would be incorporated into each air carrier's ACS SP. Table 5 shows how many machines would need to be replaced by year for the different airport types:

TABLE 5 - X-RAY MACHINE TIMETABLE BY AIRPORT TYPE			
Airport Type	Year	Number of X-Ray Machines	
		Direct Air Carriers	FAC's
A(>2)	2000	419	2
A(<2)	2001	104	0
A(<2)	2002	77	3
A(<2)	2003	79	0
B	2003	74	0
C	2004	73	0

Over ten years, procuring TIP-compatible x-ray systems would cost the direct air carriers \$41.43 million (net present value, \$34.30 million) and the foreign air carriers \$255,400 (net present value, \$210,400). The FAA's purchase of 548 systems costs \$24.05 million; since these purchases would occur before 2000, they are considered sunk costs and are not included in the ten year costs.

This proposed section would require that direct air carriers make sure that the x-ray machines are in good working order. Since direct air carriers are currently inspecting these machines, there would be no additional cost.

DSC's and ISC's would also be affected by these proposed changes. The FAA assumes that those DSC's that would choose to use x-ray already have the applicable equipment,<sup>66</sup> so that DSC's would not have additional costs. Both §§ 109.207 and 129.26 would contain proposed amendments similar to those described above for § 108.205. Those ISC's choosing to screen by using x-ray systems would need to purchase an

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<sup>65</sup> Five hundred thirty eight of the machines would need to be maintained by direct air carriers, while ten of the replaced machines would need to be maintained by FAC's.

<sup>66</sup> Source: The Office of Civil Aviation Security, FAA, October 1998



x-ray machine, at \$70,000 each,<sup>67</sup> and a step wedge, costing \$179. Each machine would need annual maintenance, estimated at 10 percent of cost, or \$7,000 per year. Given 198 ISC x-ray screening locations, ten year costs sum to \$27.76 million (net present value, \$22.72 million).

Currently, § 129.26 requires FAC's using x-ray systems to establish procedures to ensure that each operator of the system be provided with an individual personal dosimeter to measure exposure to x-rays. The FAA is proposing to omit this requirement; this omission would result in cost savings. The FAA estimates that it costs \$1.50 for each dosimeter to be read, and they are read once a month. There is no cost to purchase these dosimeters; it is standard industry practice by the dosimeter companies to provide them for free. Each of the 7 foreign air carriers that operate FAC-only checkpoints would need to mail the dosimeters to these companies; the FAA estimates postage costs of \$5 per package. The GSC (or equivalent) would need to spend 15 minutes reviewing each monthly report from the dosimeter company. Over ten years, the proposed omission of the dosimeter requirement would save FAC's \$43,500 (net present value, \$30,300).

Total ten year costs for this proposed section sum to \$69.39 million (net present value, \$57.20 million), with costs to direct air carrier's summing to \$41.43 million (net present value, \$34.30 million), to ISC's summing to \$27.76 million (net present value, \$22.72 million), and to FAC's summing to \$211,900 (net present value, \$180,100). FAA sunk costs sum to \$24.05 million.

#### §§ 108.207 and 129.28 - Use of Explosives Detection Systems

Proposed § 108.207 (current § 108.20) requires, under certain circumstances, that each air carrier shall use an EDS to screen checked baggage on each international flight. The FAA proposes to require air carriers to screen checked baggage on each international flight in accordance with their screening companies' SSSP. This proposal would

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<sup>67</sup> This assumes that some ISC's would choose to purchase the standard sized opening machine which runs around \$40,000, while others would choose to purchase a wide-mouth one which runs around \$100,000. Hence, the FAA is using an average of these two costs.

require that each air carrier should ensure that each EDS it uses has a TIP system.<sup>68</sup>

This requirement would not have any cost impact. Currently, all of the EDS's that the FAA is in the process of deploying already have TIP installed in them. More importantly, since EDS is not currently required, there would not be any EDS-related TIP costs.

A new § 129.28 would also be added to extend the TIP requirements for EDS to FAC's. The language would also require FAC's to comply with their MSP and their screening companies' SSSP. This new requirement would not have any cost impact.

§§ 108.229, 109.205, and 129.25(n) - Monitoring of screener training tests

Proposed new §§ 108.229, 109.205, and 129.25(n) would require that each carrier monitor each screener training test required under § 111.215, 'Training tests: requirements,' for all screening companies screening on the carrier's behalf. This proposed requirement is intended to increase carrier involvement with the training and testing processes and to help deter cheating.

Each test monitor would have to be a direct carrier employee (not a contracted employee) unless otherwise authorized by the Administrator who does not have part 111 or other screening-related responsibilities. Requiring that monitors be direct carrier employees would prevent carriers from designating contracted screening company employees as test monitors, thus defeating the intent of increasing carrier involvement. The FAA also anticipates that possible instances of cheating would be less likely if the test monitor did not have immediate screening-related responsibilities. Carriers could designate any qualified direct carrier employee as a test monitor, including GSC's.

The costs for the SC's contacting the direct air carriers are shown in § 111.215. The costs for the direct air carriers, DSC's, ISC's, and FAC's complying and providing a screener monitor are covered in this section.

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<sup>68</sup> This proposed requirement would be similar to the requirement that air carriers install TIP systems on their x-ray systems.

The FAA assume? that it would take a clerk at the direct air carrier 10 minutes to process the letter received from the SC and ensure that an employee would be present to monitor the test. As noted above, the FAA assumes that each SC at each airport would give this test once a week each week during the year. As discussed above, the test would take one hour, and the FAA is assuming that this test would be monitored by the GSC (or designee). Given the 525 screening company presences at airports that require screening, used exclusively by direct air carriers or by both direct air carriers and FAC's, ten year costs sum to \$8.43 million (net present value, \$5.90 million).

DSC's would also have costs, and this would involve the employee's time serving as the monitor. As noted above, the FAA assumes 15 DSC's would screen cargo, each having an average of 18 locations. Given a turnover rate of 33 percent for these screeners, there would be 90 tests needed a year (calculation: 15 times 18 times 33 percent). Ten year costs sun: to \$22,000 (net present value, \$15,500).

Similarly, ISC's would also entail costs, and the only costs would be that employee's time serving as the monitor. As noted above, the FAA assumes 264 ISC's would screen cargo, each having an average of 3 locations. Given a turnover rate of 33 percent for these screeners, there would be 264 tests needed a year. Ten year costs sum to \$64,700 (net present value, \$45,400).

The 7 FAC's that screen at the 8 FAC-only operated screening sites would also have costs. As with screeners that screen for direct air carriers, costs were calculated based on an average annual screener turnover rate of 110 percent and based on tests being given once a week each week during the year. Ten year costs sum to \$114,900 (net present value, \$80,700).

These proposed sections would also require that screeners be evaluated by a non-screening supervisor once a year. Direct air carriers and FAC's already have a supervisor do this, so the only additional cost would be for ISC's. The FAA estimates that these once a year evaluations take, on average, 30 minutes per screener, and involve the supervisor@ meeting with each screener and, based on this conversation, filling out a form. Each ISC would have 3 screeners at its 3 screening locations as well as an SPC.

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<sup>69</sup> Even though ISC's do not have GSC's, the FAA is assuming costs based on this supervisor being the equivalent of a GSC.

Ten year costs above and beyond the SPC's time sum to \$409,200 (net present value, \$287,400).

Hence, ten year costs for this proposed section sum to \$9.04 million (net present value, \$6.32 million), of which costs to direct air carriers and DSC's sum to \$8.45 million (net present value, \$5.91 million)<sup>70</sup> to ISC's sum to \$473,900 (net present value, \$332,800), and to FAC's sum to \$114,900 (net present value, \$80,700).

### § 109.3 - Definitions

The proposed changes to § 109.3 would add the definition of indirect air carrier to clarify its use. Since this wording is definitional, there would be no costs.

### § 191.1 Applicability and definitions

The proposed changes to § 191.1 would include definitions applicable to conducting screening. Since this wording is definitional, there would be no costs.

### § 191.5 Security program

Currently, screeners are required to protect SSI because they are employed by, contracted to, or acting for carriers. The FAA proposes to add to § 191.5 the requirement that screening companies must restrict access to SSI, as carriers must.<sup>71</sup> There would be no cost to extending this requirement to screening companies.

In the course of applying for and qualifying for a screening company certificate, an applicant would receive the standard SSSP. To ensure that applicants for a certificate are under the same requirements to protect SSI as persons who hold a certificate, the FAA proposes to add § 191.5(e). Thus, any one who applies for a screening company certificate would be

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<sup>70</sup> Total costs for direct air carriers sum to \$8.43 million (net present value, \$5.90 million), while total costs accruing only to DSC's sum to \$22,000 (net present value, \$15,500).

<sup>71</sup> Individuals being trained by a carrier whether or not they are being paid are considered to be employed by, contracting to, or acting for, a carrier and are responsible for protecting the SSI.

required to restrict disclosure of the security program it receives.'\* There would be no cost to extending this requirement to applicants for screening company certificates.

#### § 191.7 Description of SSI

Section 191.7 defines what information and records are SSI and, therefore, subject to the protections in § 191.5. Currently, the ACSSP is considered SSI; under this proposal, § 191.7 would be amended to treat the SSSP as SSI. In addition, specific portions of the ops specs would be considered SSI and would be protected from disclosure to unauthorized persons. There would be no cost to extending this requirement to applicants for screening company certificates.

Total ten years costs to Subpart D are \$114.79 million (net present value, \$89.79 million). FAA sunk costs sum to \$26.21 million.

#### E. Incremental Costs of Additional Requirements to Parts 108, 109, and 129

##### § 108.203 Use of Metal Detection Devices

Proposed § 108.203 would be revised to state that no air carrier may use a metal detection device contrary to its ACSSP or its screening companies' SSSP. The section would also be revised to require that metal detection devices meet the calibration standards set in the screening companies' SSSP. This revision would have no cost impact.

##### § 108.227.- Training and Knowledge of Persons with Security-related Duties

Proposed § 108.227 would be amended to require that each air carrier ensure that individuals performing security-related functions have knowledge of their screening companies' approved SSSP. The costs were covered in the analysis in

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<sup>72</sup> The same would be true of an applicant for an air carrier certificate that is seeking an approved security program.

Notice 97-12, which updated the overall regulatory structure for security of air carriers; all this change would do would be to move some of these knowledge requirements from the ACSSP to the new SSSP.

#### § 108.301 - Ground Security Coordinator

Proposed § 108.301 (current § 108.10) would be amended to require that the GSC at each airport review all the security-related functions of its screening companies and to initiate corrective action with its applicable screening company for each instance of non-compliance. The cost of this review was covered under § 111.117. The costs for any corrective actions were covered in the analysis in Notice 97-12; this change would simply move some of the screening requirements from the ACSSP to the SSSP.

#### § 109.1 Applicability

Proposed § 109.1 would revise the current § 109.1 to state that this proposed section would prescribe aviation security rules governing each ISC. There would be no cost impact from this change.

#### §§ 109.7 Falsification

Proposed § 109.7 would be a new section in this part. These sections would be added to be consistent with the falsification requirements in proposed § 108.7,<sup>73</sup> and would entail no additional costs.

#### § 109.101 Adoption and Implementation

Proposed § 109.101 would be created to emphasize the requirement for each ISC to adopt and carry out a security program. This new proposal would not entail any additional costs.

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<sup>73</sup> Proposed § 108.7 would prohibit a person from making any fraudulent or intentionally false statement or entry on any application, record, report, document, or media that is required to be kept, made, or used to show compliance with any requirement under part 108.

§ 109.201 Screening of Cargo

Proposed § 109.201 would be added to clarify that each ISC that elects to conduct screening under a security program should abide by its IACSSP and its screening companies' SSSP. This new proposal would not entail any additional costs.

There are no costs to Subpart E.

F. Cost of Compliance Summary

As shown in Table 7 below, the 10-year cost of this proposed rule would be \$300.02 million (present value, \$219.22 million).

TABLE 7 - Cost of Proposed Rule over Ten Years (1997 dollars)		
Part Number	Total Costs	Discounted Costs
<b>SubPart A</b>		
111.5	\$10,102,300	\$7,095,433
<b>Total Cost - Subpart A</b>	<b>\$10,102,300</b>	<b>\$7,095,433</b>
<b>Subpart B</b>		
111.105	\$65,597	\$50,371
111.107	\$48,134,910	\$33,266,292
111.109	\$133,037	\$96,387
111.113	\$513,661	\$447,403
111.115	\$5,286,279	\$3,702,957
111.117	\$10,363,772	\$7,377,376
111.119	\$4,780	\$3,339
<b>Total Cost-Subpart B</b>	<b>\$64,502,036</b>	<b>\$44,944,125</b>
<b>Subpart C</b>		
111.201	\$1,012,761	\$711,321
111.205	\$9,146,539	\$6,387,595
111.209	\$67,266,708	\$47,063,955
111.213	\$7,776,159	\$5,412,251
111.215	\$3,438,569	\$2,382,428
111.219	\$1,381,964	\$963,608
111.221	\$151,335	\$105,540
111.223	\$20,455,260	\$14,366,921
<b>Total Cost-Subpart C</b>	<b>\$110,629,294</b>	<b>\$77,393,619</b>
<b>Subpart D</b>		
108/109 103	\$15,286,104	\$10,744,368
109.105	\$14,770	\$10,374
108.201/109.203	\$21,053,288	\$15,510,876
108.205/109.207	\$69,394,428	\$57,200,270
108.229/109.205	\$9,041,244	\$6,324,573
<b>Total Cost - Subpart D</b>	<b>\$114,789,834</b>	<b>\$89,790,461</b>
<b>TOTAL</b>	<b>\$300,023,465</b>	<b>\$219,223,638</b>

Table 8 shows the total costs to the regulated industry segments affected as well as the FAA;<sup>74</sup> Tables A-5 through A-9 in the Appendix breaks these costs down by part number.

<sup>74</sup> Total costs would decrease for direct air carriers and increase for indirect air carriers when the labor costs for the cargo screening. As noted in the Assumptions section, since the FAA does not know how much cargo would shift from being screened currently by DSC's to ISC's, the FAA can not estimate these labor costs.



<b>TABLE 8 - Cost of Proposed Rule by Industry Segment over Ten Years (1997 dollars)</b>		
<b>Industry Segment</b>	<b>Total Costs</b>	<b>Discounted Costs</b>
Screening Companies	\$46,145,609	\$32,037,138
Direct Air Carriers	\$119,997,214	\$89,571,629
Indirect Air Carriers	\$99,197,333	\$73,178,957
Foreign Air Carriers	\$4,125,749	\$2,973,562
FAA	\$30,557,560	\$21,462,354
<b>TOTAL</b>	<b>\$300,023,465</b>	<b>\$219,223,640</b>

#### IV. Analysis of Benefits

The primary benefit of the proposed rule would be significantly increased protection to U.S. citizens and other citizens traveling on U.S. domestic and foreign air carrier flights from acts of terrorism as well as increase protection for those operating aircraft. Specifically, the proposed rule is aimed at deterring terrorism by preventing explosives, incendiaries, and deadly or dangerous weapons from being carried aboard commercial flights in checked baggage, carry-on baggage, cargo, and on persons.

Terrorism can occur within the United States. Members of foreign terrorist groups, representatives from state sponsors of terrorism, and radical fundamentalist elements from many nations are present in the United States. In addition, Americans are joining terrorist groups. The activities of some these individuals and groups go beyond fund raising to recruiting other persons (both foreign and U.S.) for activities that include training with weapons and making bombs. These extremists operate in small groups and can act without guidance or support from state sponsors. This makes it difficult to identify them or to anticipate and counter their activities. The following discussion outlines some of the concrete evidence of the increasing terrorist threat within the United States and to domestic aviation.

Investigation into the February 1993 attack on the World Trade Center (WTC) uncovered a foreign terrorist threat in the United States that is more serious than previously known. The WTC investigation disclosed that Ramzi Yousef had arrived in the United States in September 1992 and had presented himself to immigration officials as an Iraqi dissident seeking asylum. Yousef and a group of Islamic radicals in the United States then spent the next five months planning the bombing of the WTC and other acts of

terrorism in the United States. Yousef returned to Pakistan on the evening of February 26, 1993, the same day that the WTC bombing took place. Yousef traveled to the Philippines in early 1994 and by August of the same year had conceived a plan to bomb as many as twelve U.S. airliners flying between East Asian cities and the United States.

Yousef and co-conspirators Abdul Murad and Wali Khan tested the type of explosive devices to be used in the aircraft bombings and demonstrated the group's ability to assemble such a device in a public place, in the December 1994 bombing of a Manila theater. Later the same month, the capability to get an explosive device past airport screening procedures and detonate it aboard an aircraft also was successfully tested when a bomb was placed by Yousef aboard the first leg of Philippine Airlines Flight 424 from Manila to Tokyo. The device detonated during the second leg of the flight, after Yousef had deplaned at an intermediate stop in the Philippine city of Cebu.

Preparations for executing the plan were progressing rapidly. However, the airliner bombing plot was discovered in January 1995 by chance after a fire led Philippine police to the Manila apartment where the explosive devices were being assembled. Homemade explosives, batteries, timers, electronic components, and a notebook full of instructions for building bombs were discovered. Subsequent investigations of computer files taken from the apartment revealed the plan, in which five terrorists were to have placed explosive devices aboard United, Northwest, and Delta airline flights. In each case, a similar technique was to be used. A terrorist would fly the first leg of a flight out of a city in East Asia, planting the device aboard the aircraft and then deplane at an intermediate stop. The explosive device would then destroy the aircraft, continuing on a subsequent leg of the flight to the United States. It is likely that thousands of passengers would have been killed if the plot had been successfully carried out.

Yousef, Murad and Khan were arrested and convicted in the bombing of Philippine Airlines flight 424 and in the conspiracy to bomb U.S. airliners. Yousef was sentenced to life imprisonment for his role in the Manila plot, while the two other co-conspirators have been convicted. Yousef also was convicted and sentenced to 240 years for the World Trade Center bombing. However, there are continuing concerns about the possibility that other conspirators remain at large. The airline bombing plot, as described in the files

of Yousef's laptop computer, would have had five participants. This suggests that, while Yousef, Murad and Khan are in custody, there may be others at large with the knowledge and skills necessary to carry out similar plots against civil aviation.

The fact that Ramzi Yousef was responsible for both the WTC bombing and the plot to bomb as many as twelve United States air carrier aircraft shows that: (1) foreign terrorists are able to operate in the U.S. and (2) foreign terrorists are capable of building and artfully concealing improvised explosive devices that pose a serious challenge to aviation security. This, in turn, suggests that foreign terrorists conducting future attacks in the U.S. may choose civil aviation as a target. Civil aviation's prominence as a prospective target is clearly illustrated by the circumstances of the 1995 Yousef conspiracy.

The bombing of a Federal office building in Oklahoma City, Oklahoma shows the potential for terrorism from domestic groups. While the specific motivation that led to the Oklahoma City bombing would not translate into a threat to civil aviation, the fact that domestic elements have shown a willingness to carry out attacks resulting in indiscriminate destruction is worrisome. At a minimum, the possibility that a future plot hatched by domestic elements could include civil aircraft among possible targets must be taken into consideration. Thus, an increasing threat to civil aviation from both foreign sources and potential domestic ones exists and needs to be prevented and/or countered.

That both the international and domestic threats have increased is undeniable. While it is extremely difficult to quantify this increase in threat, the overall threat can be roughly estimated by recognizing the following:

- ✈️ aircraft and American passengers are representatives of the United States, and therefore are targets;
- Up to 12 airplanes could have been destroyed and thousands of passengers killed in the actual plot described above;<sup>75</sup>
- These plots came close to being carried out; it was only through a fortunate discovery and then extra tight

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<sup>75</sup> While the proposed rule would not have prevented the plot described above, this plot is representative of the type and seriousness of the threat that this proposed rule is trying to prevent.

security after the discovery of the plot that these incidents were thwarted;

- . It is just as easy for international terrorists to operate within the United States as domestic terrorists, as evidenced by the World Trade Center bombing; therefore,
- . Based on these facts, the increased threat to domestic aviation could be seen as equivalent to some portion of 12 Class I Explosions on U.S. airplanes. (The FAA defines Class I Explosions as incidents that involve the loss of an entire aircraft and incur a large number of fatalities.)

In 1996, both Congress and the White House Commission on Aviation Safety and Security (Commission) recommended further specific actions to increase civil aviation security. The Commission stated that it believes that the threat against civil aviation is changing and growing, and recommended that the Federal Government commit greater resources to improving civil aviation security. President Clinton, in July 1996, declared that the threat of both foreign and domestic terrorism to aviation is a national threat. The U.S. Congress recognized this growing threat in the Federal Aviation Reauthorization Act of 1996 by: (1) authorizing money for the purchase of specific anti-terrorist equipment and the hiring of extra civil aviation security personnel; and (2) requiring the FAA to promulgate additional security-related regulations.

In the absence of increased protection for the U.S. domestic passenger air transportation system, it is conceivable that the system would be targeted for future acts of terrorism. If even one such act were successful, the traveling public would demand immediate increased security. Providing immediate protection on an ad hoc emergency basis would result in major inconveniences, costs, and delays to air travelers that may substantially exceed those imposed by the planned and measured steps contained in this proposal.

Based on the above statement, and after evaluating feasible alternative measures, the FAA concludes that this proposed rule sets forth the best method to provide increased security at the present time. Notwithstanding the above, it is helpful to consider, to the limited extent possible, the benefits of this proposal in reducing the costs associated with terrorist acts. The following analysis describes alternative assumptions regarding the number of terrorist acts prevented and potential market disruptions averted that

result in the proposed rule benefits at least equal to the proposed rule costs. This is intended to allow the reader to judge the likelihood of benefits of the proposed rule equaling or exceeding its cost.

The cost of a catastrophic terrorist act can be estimated in terms of lives lost, property damage, decreased public utilization of air transportation, etc. Terrorists acts can result in the complete destruction of an aircraft with the loss of all on board. The FAA considers a Boeing 737 as representative of a typical airplane flown domestically. The fair market value of a Boeing 737 is \$16.3 million, and the typical 737 airplane has 113 seats.<sup>76</sup> It flies with an average load factor of 64.7%, which translates into 73 passengers per flight; the airplane would also have two pilots and three flight attendants.<sup>77</sup>

A terrorist catastrophic event could also result in fatalities on the ground. There were 11 such fatalities in the Pan Am 103 explosion and 15 in a collision of an AeroMexico airplane with a Piper PA-28 airplane over Cerritos, California in 1986.<sup>78</sup> However, looking at the number of accidents including aircraft covered by this proposed rule and the number of fatalities on the ground over the last ten years, the average fatality was less than 0.5 persons per accident. Therefore, the FAA will not assume any ground fatalities in this analysis.

In order to provide a benchmark comparison of the expected safety benefits of rulemaking actions with estimated costs in dollars, a minimum of \$2.7 million is used as the value of avoiding an aviation fatality (based on the willingness to pay approach for avoiding a fatality). In these computations, the present value of each incident was calculated using the current discount rate of 7 percent. Applying this value, the total fatality loss of a single

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<sup>76</sup> See Federal Aviation Administration, Economic Values for Evaluation of Federal Aviation Administration Investment and Regulatory Programs (Economic Values), FAA-APO-98-8, June 1998. The price of the Boeing 737 was adjusted to 1997 dollars.

<sup>77</sup> FAA regulations require one flight attendant for every 50 seats. As the typical 737 has 132 seats, this translates into 3 flight attendants.

<sup>78</sup> This took place on August 31, 1986. The AeroMexico airplane was a DC-9, and all 64 on board were killed. Eighteen others were killed, including 3 in the Piper and 15 on the ground.

Boeing 737 is represented by a cost \$210.6 million (78 x \$2.7 million).

The safety related costs of a single domestic terrorist act on civil aviation are summarized in Table 8.

TABLE 8 COSTS OF A SINGLE CLASS I EXPLOSION (1997 Dollars)			
	Number	Value	Total Cost
Fatalities	78	\$2,700,000	\$210,600,000
Aircraft	1	\$16,300,000	\$16,300,000
Property	1	\$12,384,186	\$12,384,186
Investigation <sup>79</sup>	1	\$28,357,066	\$28,357,066
Legal Fees <sup>80</sup>		\$3,534,043	\$3,534,043
Total			<b>\$271,175,295</b>
Total, discounted			<b>\$190,457,261</b>

Source: U.S. DOT, FAA, APO-310, March 1999.

Certainly the primary concern of the FAA is preventing loss of life, but there are other considerations as well. Another large economic impact is related to decreased airline travel following a terrorist event. A study performed for the FAA<sup>81</sup> indicated that it takes about 9 to 10 months for passenger traffic to return to the pre-incident level after a single event.<sup>82</sup> Such a reduction occurred immediately following the destruction of Pan Am Flight 103 over Lockerbie, Scotland in December 1988, and

<sup>79</sup> This assessment is based on the investigation to date on Pan Am 103 bombing over Lockerbie, Scotland, in December 1988.

<sup>80</sup> Both the civil and criminal trials stemming from the Pan Am 103 tragedy have not yet been completed. Thus, it is impossible to estimate all the legal costs from these trials. However, the government spent between \$3,534,043 (1997 dollars) on the civil trial as of August 1992, so this figure will be used as a lower limit for such tragedies.

<sup>81</sup> Pailen-Johnson Associates, Inc., "An Econometric Model of the Impact of Terrorism on U.S. Air Carrier North Atlantic Operations", Contract No. DTFA01-86-Y-01055, Prepared for: Aircraft/Interactively & Safety Branch, FAA, Washington D.C., Sept. 1987.

<sup>82</sup> No study has looked at the effect of more than one explosion or other criminal or terrorist incident, such as the plot masterminded by Ramzi Yousef to blow up twelve airplanes, happening within a short period of time. The amount of market loss (due to a disruption in passengers' confidence to fly) from these multiple acts (such as Class I Explosions) could have been significant.

can be seen in the following tables, which are based on Pan Am's Trans-Atlantic enplanements:

TABLE 9 - PAN AM - MONTHLY ENPLANEMENTS FOR TRANS-ATLANTIC ROUTES						
	1985	1986	1987	1988	1989	1990
Jan	364,182	394,938	429,627	497,908	405,876	494,168
Feb	314,873	334,406	360,140	434,335	324,156	407,373
Mar	296,733	422,164	473,734	573,078	449,154	531,867
Apr	337,936	401,276	525,844	599,707	513,900	587,046
May	502,857	438,585	596,839	656,265	574,414	624,165
June	569,492	481,808	663,563	718,781	660,945	734,271
July	572,062	503,910	715,506	730,224	671,131	734,881
Aug	568,605	573,630	746,261	752,226	677,074	663,405
Sept	567,147	538,396	659,922	687,924	622,350	566,867
Oct	498,354	493,161	645,901	668,763	581,780	261,280
Nov	395,361	429,760	507,773	494,815	499,130	287,110
Dec	399,508	439,083	516,347	488,812	507,562	226,510
<b>Total</b>	<b>5,387,110</b>	<b>5,451,117</b>	<b>6,841,457</b>	<b>7,302,838</b>	<b>6,487,472</b>	

TABLE 10 - COMPARISON OF SELECTED YEARS FROM TABLE 9			
	Comparison of 1988 to 1987	Comparison of 1989 to 1988	Comparison of 1990 to 1988
Jan	115.9%	81.5%	99.2%
Feb	120.6%	74.6%	93.8%
Mar	121.0%	78.4%	92.8%
Apr	114.0%	85.7%	97.9%
May	110.0%	87.5%	95.1%
June	108.3%	92.0%	102.2%
July	102.1%	91.9%	100.6%
Aug	100.8%	90.0%	
Sept	104.2%	90.5%	
Oct	103.5%	87.0%	
Nov	97.4%	100.9%	
Dec	94.7%	103.8%	

As the tables show, in general, 1988 enplanements were above 1987's. There was a dramatic fall-off in enplanement in the first 3 months of 1989 immediately following the Pan Am 103 tragedy, and it took until November 1989 for enplanements to approximate their 1987 and 1988 levels. By 1990, enplanements were at the level they were in 1988. Trans-Atlantic enplanements increased, from 1985 to 1988, at an annual rate of 10.7 percent.<sup>83</sup> Projecting this rate to 1989 would have yielded 1989 enplanements of 8.1 million, or 1.6 million more than Pan Am actually experienced. This

<sup>83</sup> The only substantive pause in the increase in Pan Am enplanements occurred from May through October in 1986, due to fears brought on by the bombing of TWA 840 over the Aegean Sea, in April 1986.

represents almost a 20 percent reduction in expected enplanements caused by the destruction of Pan Am 103 by terrorists.

The estimated effect of a successful terrorist act on the domestic market has not been studied. Although there are important differences between international and domestic travel (such as the availability of alternative destinations and means of travel), the FAA believes that the traffic loss associated with international terrorist acts is representative of the potential domestic disruption.

There is a social cost associated with travel disruptions and cancellations caused by terrorist events. The cost is composed of several elements. First is the loss associated with passengers opting not to fly -- the value of the flight to the passenger (consumer surplus) in the absence of increased security risk and the profit that would be earned by the airline (producer surplus). Even if a passenger opts to travel by air, the additional risk may reduce the associated consumer surplus. Second, passengers who cancel plane trips would not purchase other goods and services normally associated with the trip, such as meals, lodging, and car rental, which would also result in losses of related consumer and producer surplus. Finally, although spending on air travel would decrease, pleasure and business travelers may substitute spending on other goods and services (which produces some value) for the foregone air trips. Economic theory suggests that the sum of the several societal value impacts associated with canceled flights would be a net loss. As a corollary, prevention of market disruption (preservation of consumer and producer welfare) through increased security created by the proposed rule is a benefit.

The FAA is not able to estimate the actual net societal cost of travel disruptions and the corollary benefit gained by preventing the disruptions. However, there is a basis for judging the likelihood of attaining benefits by averting market disruption sufficient, in combination with safety benefits, to justify the proposed rule. The discounted cost of this proposed rule is \$219.22 million, while the discounted benefits for each Class I Explosion averted comes to \$190.46 million. Hence, if 1 Class I Explosion is averted, the present value of losses due to market disruption must at least equal \$28.77 million (\$219.22 million less \$190.46 million -- one Class I Explosion). If



2 Class I Explosions are averted, the costs shown in Table 7 would exceed the costs of this proposed rule.

The value of market loss averted is the product of the number of foregone trips and the average market loss per trip (combination of all impacts on consumer and producer surplus). If one uses an average ticket price of \$160 as a surrogate of the combined loss, preservation of a minimum of 179,800 lost trips would be suffered, in combination with the safety benefits of 1 averted Class I Explosion, for the benefits of proposed rule to equal costs. This represents less than 0.1 percent of annual domestic trips (the traffic loss caused by Pan Am 103 on trans-Atlantic routes was 20 percent)." Calculations can be made on the minimum number of averted lost trips needed if the net value loss was only 75 percent of the ticket price or exceeded the ticket price by 25 percent. If total market disruption cost was \$130 or \$200 per trip, a minimum retention of 221,300 and 143,800 lost trips, respectively, would need to occur for the proposed rule benefits to equal the proposed rule costs, assuming 1 Class I Explosion would be prevented. The FAA requests comments on the potential size of market loss per trip and number of lost trips averted.<sup>85</sup>

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<sup>84</sup> The average price of a ticket and the number of domestic enplanements were estimated based on information contained in the report entitled FAA Aerospace Forecasts: Fiscal Years 1999-2010, Tables 7 and 12, FAA-APO-99-1, March 1999. Total domestic trips in 1998 was 396 million and was obtained by assuming 1.4 enplanements per one-way trip.

<sup>85</sup> The FAA used the same set of benefits for another rulemaking, Security of Checked Baggage on Flights Within the United States as both rulemakings have the same goal--to significantly increased the protection to U.S. citizens and other citizens traveling on U.S. domestic air carrier flights from acts of terrorism as well as also increase protection for those operating aircraft. Accordingly, the FAA calculated the economic impact and the potential averted market disruption sufficient, in combination with safety benefits, to justify both proposed rules.

The 10-year cost the aforementioned rule is \$2.76 billion (net present value, \$1.97 billion). Combining that cost with the cost of this proposed rule sums to 3.06 billion (net present value, \$2.19 billion). The discounted cost of the two proposed rules are \$2.19 billion, while the discounted benefits for each Class I Explosion averted comes to \$190 million. Hence, if only 1 Class I Explosion is averted, the present value of losses due to market disruption must at least equal \$1.99 billion (\$2.19 billion less \$190 million -- one Class I Explosion). If two Class I Explosions are averted, the value of the market losses must at least equal \$1.80 billion (\$2.19 billion less 2 times \$190 million).

Using an average ticket price of \$160 as a surrogate of the combined loss, preservation of 12.5 million lost trips would be suffered, in combination with the safety benefits of 1 averted Class I

The FAA stresses that the range of trips discussed in the above paragraph should be looked upon as examples and does not represent an explicit endorsement that these would be the exact number of trips that would actually be lost. As noted above, it is important to compare, to the limited extent possible, the cost of this proposal to some estimate of the benefit of increased security it would provide as that level of security relates to the threat level.

Based on changes in the domestic security risk, the White House Commission recommendation, recent Congressional mandates, and the known reaction of Americans to any air carrier disaster, the FAA believes that pro-active regulation is warranted to prevent terrorist acts (such as Class I Explosions) before they occur.

#### V. Comparison of Costs and Benefits

This proposed rule cost would cost \$300.02 million (present value, \$219.22 million) over ten years. This cost needs to be compared to the possible tragedy that could occur if a bomb or some other incendiary device were to get onto an airplane and cause an explosion. Recent history not only points to Pan Am 103's explosion over Lockerbie, Scotland, but also the potential of up to 12 American airplanes being blown up in Asia in early 1995. As discussed above, the cost of an airplane explosion is approximately \$271.18 million (present value, \$190.46 million) plus an unspecified number of canceled trips. If the value of these canceled trips exceeds a present value of \$28.77 million, the proposed rule would need to prevent one Class I Explosion

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Explosion, for the benefits of proposed rule to equal costs. If total market disruption cost was \$130 or \$200 per trip, retention of 15.4 and 10.0 million lost trips, respectively, would need to occur for the proposed rules benefits to equal the proposed rules costs, assuming 1 Class I Explosion would be prevented.

Using the \$160 ticket price, to prevent 2, 3, and 4 Class I Explosions, retention of 11.3 million, 10.1 million, and 8.9 million lost trips, respectively would need to occur for the proposed rules benefits to equal the proposed rules costs. Using the \$130 ticket price, to prevent 2, 3, and 4 Class I Explosions, retention of 13.9 million, 12.4 million, and 10.9 million lost trips, respectively would need to occur for the proposed rules benefits to equal the proposed rules costs. Using the \$200 ticket price, to prevent 2, 3, and 4 Class I Explosions, retention of 9.0 million, 8.1 million, and 7.1 million lost trips, respectively would need to occur for the proposed rules benefits to equal the proposed rules costs.

over the next 10 years in order for quantified benefits to exceed costs.

Congress has mandated that the FAA promulgate regulations to certificate screening companies. Congress, which reflects the will of the American public, has determined that this proposed regulation is in the best interest of the nation. Because this proposed regulation reflects the will of the American people, and because its cost is low compared to the potential catastrophe of a single bomb explosion on an airplane, the FAA finds this proposed rule cost-beneficial.

## VI. Initial Regulatory Flexibility Determination

### A. Initial Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities (small business and small not-for-profit Government jurisdictions) are not unnecessarily and disproportionately burdened by Federal regulations. The RFA, which was amended in March 1996, requires regulatory agencies to review rules to determine if they have "a significant economic impact on a substantial number of small entities." The Small Business Administration defines small entities to be those screening companies and/or airlines with 1,500 or fewer employees for the air transportation industry. For this proposed rule, the small entity groups are considered to be both scheduled air carrier operators (subject to FAR part 108) and screening companies having 1,500 or fewer employees.<sup>86</sup> The FAA has identified a total of 41 direct air carriers and 38 screening companies that meet this definition, as shown in Tables B-1 and C-1 in Appendices B and C, respectively."

The FAA has estimated the annualized cost impact on each of the small entities, but has not conclusively determined whether or not the proposed rule would have a significant economic impact on a substantial number of small air carrier and screening company entities. Accordingly, the Agency has prepared an initial regulatory flexibility analysis. This decision is based on the following analyses:

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<sup>86</sup> The Standard Industrial Classification Code for these small entities is 4512, which represents "Scheduled Air Passenger Carriers."

<sup>87</sup> Some of the small air carriers and screening companies uses contractors to perform some of their functions; these contractors are not included in the column labelled 'Number of Employees.'

- One percent of the 1997 annual median revenue of the 41 small direct air carriers impacted by this proposed rule, which is \$809,610 in 1997 dollars, is considered economically significant." As Table B-1 shows, none of the 41 small entities subject to part 108 would incur a substantial economic impact in the form of annualized costs in excess of \$809,610 as the result of the proposed rule. However, as will be discussed further below, several of the small direct air carriers are having financial difficulties and may have trouble meeting the requirements of this proposed rule. Furthermore, the cost burden is not strictly proportionate to the size of the airline as measured by the number of employees. In addition, as discussed below, the FAA was unable to obtain complete financial data on approximately one third the air carriers and believes it important to show the potential impact on these entities for the sake of completeness and in the hope of eliciting substantive comments.
- One percent of the 1997 annual median revenue of the 38 small screening companies impacted by this proposed rule, which is \$296,830 in 1997 dollars, is considered economically significant.<sup>89</sup> As Table C-1 shows, none of the 38 small entities subject to the proposed part 111 would incur a substantial economic impact in the form of annualized costs in excess of \$296,830 as the result of the proposed rule. However, based on the data available, some of the screening companies may have trouble meeting the requirements of the proposed rule due to financial difficulties. In addition, as discussed below, the FAA was unable to obtain any data on half of the screening companies and complete data on most of the rest, and so believes it important to show the potential impact on these entities for the sake of completeness and in the hope of eliciting substantive comments.

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<sup>88</sup> For the 29 small air carriers that the FAA has revenue information on, the median is \$809,610. Of the 14 other air carriers, the FAA had 1995 revenue data for 13 of these. To estimate 1997 revenue, the FAA calculated the average growth rate for each category (i.e., national, large regional) from 1995 to 1997 and applied the applicable growth rate to each of these 13 air carriers.

<sup>89</sup> As will be described in more detail below, the FAA was not able to collect information on half of the small screening companies. Based on information, the FAA had 1997 revenue information for 11 small screening companies and was able to estimate it for 8 others.

The FAA has not performed this type of analysis for the indirect carriers that would choose to screen cargo (referred to, in the analysis above, as ISC's). Each of these carriers would have chosen to be certificated under part 111 and thus, be voluntarily subjected to these proposals. Since the carriers would have chosen to incur the costs, the FAA believes that none of these carriers would have done so if it were not in their financial interests. The FAA does not know which carriers would be certificated under proposed part 111 and so does not know how many of these carriers would be small entities. The FAA seeks comments concerning whether any small indirect carriers would screen cargo and requests that all comments be accompanied with clear documentation.

## B. Initial Regulatory Flexibility Analysis

Under section 603(b) of the RFA (as amended), each initial regulatory flexibility analysis is required to address these points: (1) reasons why the FAA is considering the proposed rule, (2) the objectives and legal basis for the proposed rule, (3) the kind and number of small entities to which the proposed rule would apply, (4) the projected reporting, recordkeeping, and other compliance requirements of the proposed rule, and (5) all Federal rules that may duplicate, overlap, or conflict with the proposed rule. The FAA will perform this analysis for small direct air carriers and small screening companies separately.

### 1. Air Carriers

#### Reasons why the FAA is considering the proposed rule

Over the past several years, both Congress and the FAA have recognized that the threat against civil aviation is changing and growing (see either the background section of this analysis or the background section of the preamble for a more detailed discussion of this threat). Terrorist and criminal activities within the United States have forced the Congress, the FAA and other Federal agencies to reevaluate the domestic threat against civil aviation. The proposed rule is intended to counter this increased threat to U.S. civil aviation security.

### The objectives and legal basis for the proposed rule

The objective of the proposed rule is to increase protection to Americans and others traveling on U.S. domestic air carrier flights from terrorist acts. Specifically, the proposed rule is aimed at preventing explosives from being on board commercial flights either in carry-on baggage or checked cargo.

The legal basis for the proposed rule is found in 49 U.S.C. 44901 et seq. Among other matters the FAA must consider as a matter of policy are maintaining and enhancing safety and security in air commerce as its highest priorities (49 U.S.C. 40101(d)).

### The kind and number of small entities to which the proposed rule would apply

The proposed rule applies to 150 scheduled airlines subject to FAR part 103, of which 41 are small scheduled operators (with 1,500 or fewer employees). Table 9 gives a breakdown of the number of small direct air carriers in each category (majors, nationals, large regionals, and medium regionals). A brief financial profile of these small entities is provided in Tables B-2 (net income) and B-3 (assets, liabilities, and financial strength ratios) by the same categories.

Table 9 - Number of Small Air Carriers Impacted by Proposed Rule			
category	Annual Revenues By Category	No. Of Small Carriers Impacted"	
Majors	More than \$ 1.0b	0	
Nationals	\$100.0m-\$ 1.0b	10	
Large Regionals	\$ 20.0m-\$99.9m	10	
Medium Regionals	\$ 0.0m-\$19.9m	4	
Small Regionals	***** <sup>91</sup>	17	
<b>Total</b>			

The projected reporting, recordkeeping, and other compliance requirements of the proposed rule

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA has submitted a copy of these proposed sections to the Office of Management and Budget (OMB) for its review. Four proposed sections would impose paperwork costs on direct air carriers:

a. Proposed section 108.103(b) (14) and (15) would require that two items be added to carrier security programs. Direct air carriers would accrue costs for the time needed to write up the new sections and send these sections to the FAA (requiring 32 hours and costing \$715), respond to the FAA's edits and returning the sections to the FAA (requiring 1.5 hours and costing \$36, which takes into account the assumption that only 19 percent of sections would be edited by the FAA), <sup>92</sup> and add to and maintain the new sections in

<sup>90</sup> Several of the small air carriers changed size categories over the period examined. All Tables are based on the size category that the air carrier was in as of December 1997.

<sup>91</sup> The Small Certificated carriers (which includes Small Regionals) are not defined by annual revenues. Large Certificated carriers (which includes Majors through Medium Regionals), which file Form 41, must fly aircraft with 60 seats or more or have a payload of 18,000 lbs or more. Small Certificated carriers, which file Form 298C, fly aircraft that have less than 60 seats and less than 18,000 lbs payload. Some Small Certificated carriers have more than \$100 million in annual revenues.

<sup>92</sup> As explained in the Assumptions portion of the cost analysis, this percentage, 19%, was reported by airports involving returns from their submission of their Airport Security Programs; this data comes from an unpublished American Association of Airport Executives (AAAE) membership survey, performed in 1991, on the costs of complying with the individual sections of part 107. This percentage is assumed where one entity submits documentation for another to review and/or approve; the FAA assumes that in all cases, 19% of the time, the second entity will return the document for additional changes.

their ACSSP (requiring 2.5 hours and costing \$53) for an annual total of 36 hours, costing \$804 per air carrier. Ten year paperwork requirements for each air carrier sums to 360 hours, costing \$8,040.

**b. Proposed sections 108.201(j) and (k)** would require that each carrier ensure that each screening company conduct screening in accordance with the applicable rules and requirements. Direct air carriers would accrue costs based on the air carrier's comments on FAA amendments (requiring 13.7 hours, and costing \$305, which takes into account the assumption that only 19 percent of sections would be commented on by the FAA) and clerical maintenance on the new amendments (requiring 3.5 hours and costing \$74) for an annual total of 17.2 hours and costing \$379. Ten year paperwork requirements for each air carrier sums to 171.80 hours, costing \$3,790.

**c. Proposed section 108.205** would require carriers to download and collect automated x-ray threat image projection [TIP) data as specified in the ACSSP and the SSSP. The FAA has not developed the specific collection requirements to be included in the security programs; however, for the purposes of this analysis, the FAA assumed that the carriers would collect and analyze the data monthly. With the average small direct air carrier having 3 x-ray systems, the average annual paperwork-required time and costs sum to 183 hours, costing \$4,482 per carrier; ten year totals sum to 1,830 hours, costing \$44,820.

**d. Proposed section 108.229** would describe the requirements involved with carriers monitoring screening company classroom testing. The requirement reflects the time and cost for a clerk of a direct air carrier to process a letter from a screening company requesting a test monitor (as requested under proposed § 111.215). With the average direct air carrier having 4 screening companies screening for it, the average annual paperwork-related time and costs sum to 34.7 hours costing \$730 per carrier; ten year costs sum to 346.7 hours costing \$7,300.

The average amount of paperwork time and costs for each small direct air carrier sums to 270.9 hours, costing \$6,395 per year. Over ten years, total time and costs for all small direct air carriers sum to 111,048.5 hours costing \$2,621,950.



All federal rules that may duplicate, overlap, or conflict with the proposed rule

The FAA is unaware of any Federal rules that either duplicate, overlap, or conflict with the proposed rule.

**Other Considerations:**

Affordability analysis

For the purpose of this analysis, the degree to which small entities can "afford" the cost of compliance is predicated on the availability of financial resources. Initial implementation costs can be paid from existing company assets such as cash, by borrowing, or through the provision of additional equity capital. Continuing annual costs of compliance may be accommodated either by accepting reduced profits, by raising ticket prices, or by finding other ways of offsetting costs.

In this analysis, one means of assessing the affordability is the ability of each of the small entities to meet its short-term obligations, as shown in Tables B-2 (net income: columns B through E) and B-3 (working capital and financial strength ratios). According to financial literature, a company's short-run financial strength is substantially influenced by its working capital position and its ability to pay short-term liabilities, among other things.

Net working capital is the excess of current assets over current liabilities. It represents the margin of short-term debt-paying ability over existing short-term debt. In addition to the amount of net working capital, two analytical indexes of current position are often computed: (1) current ratio; and (2) quick ratio. The current ratio (i.e., current assets divided by current liabilities) helps put the amount of net working capital into perspective by showing the relationship between current assets and short-run debt. And the quick ratio (sometimes called the acid test ratio) focuses on immediate liquidity (e.g., cash, marketable securities, accounts receivable, , divided by current liabilities). A decline in net working capital, the current ratio, and the quick ratio over a period of time (say, 3 years, 4 years, etc.) may indicate that a company is losing financial solvency. Negative net working capital is an indication of financial difficulty. If a company is

experiencing financial difficulty, it is less likely to be able to afford additional costs.

There is an alternative perspective to the assessment of affordability based on working capital of this proposed rule. The alternative perspective pertains to the size of the annualized costs of the proposed rule relative to annual revenues. The lower the relative importance of the costs, the greater the likelihood that implementing offsetting cost-saving efficiencies or raising fares to cover increased costs will not substantially decrease the number of passengers.

The FAA collected financial information on small air carriers for 1994 to 1997.<sup>93</sup> Unfortunately, some of the needed information was not available; in those cases, the FAA estimated revenue, assets, and liabilities based on taking averages of similar sized companies. For example, many of the financial statistics for 13 of the small regional operators were not available; the FAA estimated the financial data for these operators based on the four operators that information was available for.<sup>94</sup> However, because of the paucity of data for small regionals, many of the conclusions for many of the small regional carriers may be questionable.

The financial information shown in Tables B-2 and B-3 suggest the following:

Liquidity Analysis/Profitability Analysis - Small Air Carriers

- . Six of these entities have experienced increases in their net working capital as well as their current and quick ratios over the past three or four years, as shown in Table B-3. They also are generally profitable and, therefore, probably would have financial resources available to meet the requirements of this proposed rule.

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<sup>93</sup> **sources :** Air Carrier Financial Statistics Quarterly, Fourth Quarter (1995, 1996, and 1997), Bureau of Transportation Statistics, Department of Transportation and Moody's Transportation Manual, 1998.

<sup>94</sup> Total financial data was not available for one of the Nationals for one year, for one of the Medium Regionals for two years, and for thirteen of the Small Regionals for two years. Partial financial data was not available for twelve of the Small Regionals for the two other years. In addition, two of the 41 small air carriers (one Medium Regional and one Small Regional) were not in operation for the 1994-97 time period.

- . One small entity was unprofitable in 1997; however, it was profitable in the three previous years'. In addition, it has positive net working capital, and its current and quick ratios have been strong. It is likely that this carrier would not have trouble meeting the costs of this proposed rule.
- . For ten currently profitable small entities, their ability to afford the cost of compliance is less certain. This uncertainty stems from the fact that the financial performances of these entities have been inconsistent over the past four years.
- . The current liquidity and profitability of eleven small entities would require action to finance the expected cost of compliance imposed by this NPRM. Over the past two or three years, each of these small entities has had negative net working capital. In addition, their respective current and quick ratios have generally been on a decline. They have frequently experienced financial losses.
- . For the thirteen air carriers classified as Small Regionals for which the FAA does not have complete data, it appears likely that seven of these air carriers would probably be able to afford the cost of compliance associated with this proposed rule, but the other six may have problems. This conclusion is based on their projected 1997 profitability.

#### Relative Cost Impact

- . The other alternative of assessing affordability, annualized cost of compliance relative to the total operating revenues, shows that for each of the 41 small air carriers impacted by this NPRM, there would be relatively small impacts for most of the small entities. As shown in Table B-4, columns D through F, the annualized cost of compliance relative to total operating revenues would be less than or equal to 0.61 percent in all cases.
- . Hence, for all of the air carriers, the ratio of annualized proposed rule costs to revenues would be less than 1.0 percent for each of the three years from 1995 through 1997. For all air carriers that have liquidity

and/or profitability problems, there appears to be the prospect of absorbing the cost of the proposed rule through some combination of fare increases and cost efficiencies.

No clear conclusion can be drawn with regard to the abilities of some small entities to afford the cost of compliance that would be imposed by this NPRM. On one hand, the Liquidity Analysis/Profitability Analysis does not paint a positive picture of the ability of some of the small entities impacted by this NPRM to pay near-term expenses imposed by this rule, whereas the Relative Cost Impact Analysis indicates that most of those same small entities may be able, over time, to find ways to offset the increased cost of compliance. As the result of information ascertained from both of these analyses, there is uncertainty as to whether all of the small entities would be able to afford the additional cost of doing business due to compliance with this NPRM. Because of this uncertainty, the FAA solicits comments from the aviation community (especially from small air carriers with less than 1,500 employees) as to what extent small operators subject to this NPRM would be able to afford the cost of compliance. The FAA requests that all comments be accompanied with clear supporting data.

#### Disproportionality analysis

On average, the 41 small entities would be disadvantaged relative to large air carriers due to disproportionate cost impacts. This would occur due to several reasons:

- . Individual large air carrier's total operational revenues and current assets are, on average, well over 100 times larger than the revenues and assets for small air carriers. However, the large air carriers don't deal with 100 times as many checkpoints, x-ray systems, or screening companies. So, these air carriers enjoy economies of scale in terms of the costs of complying with this proposed rule;
- All of the x-ray systems that the FAA anticipates purchasing (as described in § 108.205) would be purchased at the higher volume airports, so that almost all of them would be purchased for large air carriers; indeed, only one of these systems would be purchased for a small air carrier. This would save large air carriers almost \$22 million; and

- All air carriers, whether large or small, would have some of the same fixed administrative costs, such as writing up and maintaining new sections to their security programs (as described in §108.103). Having such costs the same would give an advantage to large air carriers when looking at the proportionate effect of this proposed rule.

#### Competitiveness analysis

This proposed rule would not impose significant costs on any small carriers. However, due to the financial problems that certain air carriers are having, there may be some impact on the relative competitive position of these carriers in markets served by them.

Since 1993, the rapid expansion of low fare service by a growing number of carriers in the United States has stimulated airline competition. Low fare carriers offer service at the same or nearby airports in competition with conventional major carriers. Low fare carriers' success depends on them having such low costs that they can offer prices that major carriers cannot match for large proportions of their flights. The low fare segment of the airline industry is still evolving, and the growth is causing changes within the U.S. air transportation system. In a 1996 study, "The Low Cost Airline Service Revolution", the U.S. Department of Transportation identified several low cost carriers.<sup>95</sup> Three of the small entities impacted by this proposed rule -- Frontier, Spirit, and Vanguard -- were among those identified in the 1996 DOT report. In addition, another small carrier, Midway Airlines, which would be impacted by this proposed rule, may also be considered low price carriers. Because these four carriers are competing with majors on the basis of price, they would need to seek ways to absorb the costs of the rule rather than simply raising fares. While this is not an easy task, it may be possible because the cost of the rule is expected to be less than one percent of recent annual revenues (see Table B-4) for these four carriers.

Three of the impacted small entities are regional carriers which code-share with major airlines -- Executive Airlines code-shares with American, UFS Inc. code-shares with United,

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<sup>95</sup> The study did not provide a definitive list of all low fare carriers.

and Trans States with TWA, Alaska Airlines, US Airways and Northwest. Code-sharing is a device whereby in some markets regional carriers feed traffic to majors (and vice versa) rather than compete with majors for traffic. Thus, for the code-sharing small regional carriers impacted by this proposed rule, competition may be limited to competition with other regional airlines rather than with major airlines. In a similar vein, Air Wisconsin, one of the entities classified as a national, is affiliated with United Airlines. For Air Wisconsin, annualized cost of the proposed rule is a very low percentage of annual revenues (Table B-4); it seems unlikely that the cost impact of the proposed rule would reduce the competitiveness of that air carrier.

While the preceding discussion points out potential impacts of the proposed rule on the competitiveness of small entities, there is uncertainty associated with the actual impact that this proposed rule would have on the level of competition within the United States. However, since costs on few air carriers would be high, it is unlikely that few small carriers would be impacted in a way to harm their competitiveness.

The FAA solicits comments on this issue from the U.S. airline industry and small airlines in particular. Specifically, commenters are asked to provide information on the impact that this proposed rule would have on the continued ability of small airlines to compete in their current markets. Comments are especially sought from operators with 1,500 or fewer employees who would be impacted by this proposed rule. The FAA requests that supporting data on markets and cost be provided with the comments.

#### Business closure analysis

The FAA is unable to determine with certainty the extent to which those small entities that would be significantly impacted by this proposed rule would have to close their operations. However, the profitability information shown in Table B-2 and the affordability analysis can be indicators in business closures.

In determining whether or not any of the 41 small entities would close as the result of compliance with this proposed rule, one question must be answered: "Would the cost of compliance be so great as to impair an entity's ability to

remain in business?" A number of these small entities are already in serious financial difficulty. To what extent the proposed rule makes the difference in whether these entities remain in business is difficult to answer. The FAA believes that the likelihood of business closure for any of these small air carriers as a result of this proposed rule is low to moderate. However, since there is uncertainty associated with whether some of the small entities would go out of business as the result of the compliance cost of this proposed rule, the FAA solicits comments from the aviation community as to the likelihood of this occurrence. As noted above, the FAA requests that all comments be accompanied with clear supporting data.

### Alternatives

The FAA considered alternatives to the proposed rule for small direct air carriers. These alternatives have compliance costs that range from \$13.30 million to \$19.95 million. Table B-S shows the annualized costs to each of the air carriers under each alternative and whether those costs would be significant. A discussion of these alternatives follows. The first alternative is the current situation, while the fifth alternative is the proposed rule. For each of the other three alternatives, the FAA will first state the proposed alternative, followed by a discussion of the sections that would be affected, how much it would save each air carrier, how much it would save all small air carriers, and why the FAA believes that the alternative would not enhance security.

#### Alternative 1 - Status Quo

Under this alternative, the FAA would exempt small direct air carriers from all requirements of this proposed rule. Continuing with this policy would be the least costly course of action but also would be less safe than the proposed rule; direct air carriers are ultimately responsible for proper screening, as they must be able to ensure that the screening companies are in compliance and that screening personnel are performing adequately. The FAA believes that the threat to civil aviation within the United States has increased and that further rulemaking is necessary. Thus, this alternative is not considered to be acceptable because it permits continuation of an unacceptable level of risk to U.S. airline passengers.

Conclusion: Under this alternative, there is a likelihood of a terrorist act resulting in a Class I Explosion involving large commercial airplanes that operate within the United States (discussed previously in the benefits section to this evaluation). In addition, the FAA would not meet the Congressional mandate.

Alternative 2 - The FAA considered doing away with the test monitoring requirements of screening companies by small direct air carriers.

Proposed §§ 108.229, 109.205, and 129.25(n) would require that each carrier monitor each screener training test for all screening companies that conduct screening on the air carrier's behalf. Each test monitor would have to be a direct air carrier employee (not a contract employee) who does not have any part 111 or any other screening-related responsibilities.

This alternative would result in cost savings to each small direct air carrier. These carriers would no longer have to process the request letters from screening companies or have employees monitor the tests. This would result in savings of about \$30 per test per direct air carrier. For an air carrier with two companies screening for them, this alternative would result in annual savings of approximately \$2,900. Over ten years, this alternative would save all small direct air carriers \$2.68 million (net present value, \$1.73 million!), resulting in total compliance costs of \$17.27 million (net present value, \$12.54 million).

The FAA believes that this alternative would not enhance security. Because air carriers are ultimately responsible for ensuring the safe and proper screening of persons and property, the FAA believes that it is important to ensure air carrier involvement with critical aspects of this rulemaking. Monitoring testing is a critical aspect of this rulemaking, for it helps to prevent potential screeners from passing the tests by cheating and other unauthorized conduct. Removing the monitoring requirement would diminish the emphasis and importance that this proposed rule places on air carrier oversight. In addition, retaining the monitoring requirement helps to support the concept of a balance of responsibilities between screening companies and the air carriers for which they screen.



Conclusion:

Under this alternative, there would be less coordination between small air carriers and screening companies. This coordination is important as it emphasizes both air carrier oversight responsibility and promotes balanced responsibilities between the carriers and screening companies. Less monitoring could result a diminution on the importance of training and testing and could increase the possibility of cheating and other unauthorized conduct. The FAA believes that potential cost savings would be outweighed by a reduction in security.

Alternative 3 - The FAA considered not requiring that smaller screening companies obtain approval from their carriers before submitting their security program amendments to the FAA.

Proposed § 111.107 would require screening companies to include in any proposed amendment packages that they send to the FAA statements that all carriers for which they screen have been advised of the proposed amendments and approve of them. Hence, each air carrier would have to process and respond to any proposed amendment by the screening companies that conduct screening on its behalf.

This alternative would result in cost savings to each small direct air carrier. These direct air carriers would not need to spend time evaluating the proposed amendments by the screening companies. In addition, these direct air carriers would not to comment on proposed changes by the FAA to the SSSP.

The direct air carriers would no longer have to expend resources evaluating the proposed amendments by the screening companies. This would save each air carrier approximately \$1,100 when initially reviewing each screening company's proposed amendment, and about \$200 if the carrier proposed changes and the screening company responded to these changes. In addition, this would save about \$200 for each FAA proposal sent to each applicable screening company. For example, for an air carrier with two companies screening for it, this alternative would produce annual savings of approximately \$4,400. Over ten years, this alternative would save all small direct air carriers \$6.65 million (net present value, \$4.67 million), resulting in total compliance costs of \$13.30 million (net present value, \$9.60 million).

The FAA believes that this alternative would harm security. Air carriers are responsible, by statute, for screening and would be held responsible along with the screening companies for complying with part 111 and the SSSP. The carriers would therefore need to be kept informed about any changes to screening-related regulations, and should have the opportunity to comment on and approve of them before the FAA approves the changes. The FAA would have a difficult time holding carriers accountable for changes of which they were not made aware; this alternative would ensure that some air carriers were not made aware of all changes.

Conclusion:

Under this alternative, all carriers would not be informed of all screening-related changes to the applicable SSSP. Without the opportunity to understand and comment on the proposed changes, security could be comprised. The FAA believes that potential cost savings would be outweighed by reduction in a security.

Alternative 4 - The FAA considered not requiring that small air carriers install and operate TIP on their x-ray systems.

Based on proposed \$ 108.205 (current \$ 108.17), each air carrier would need to ensure that each x-ray system that it uses has a TIP system that meets the standards set forth in its security program. As TIP is a new system, some older x-ray systems have not been designed to run TIP. Accordingly, many x-ray systems at airports would need to be replaced with newer systems that are TIP compatible.

This alternative would result in cost savings to all small air carriers. These carriers would not have to purchase TIP-compatible x-ray systems or maintain the TIP portions of the systems annually. This would result in savings of approximately \$40,400 in the initial purchase year and about \$700 in subsequent years. In all, 144 x-ray systems would not have to be bought. Over ten years, this alternative would save all small air carriers \$6.09 million (net present value, \$4.58 million), resulting in total compliance costs of \$13.30 million (net present value, \$9.60 million).

The FAA believes that this alternative would harm security. Promoting this alternative would result in inconsistent measurements of performance at different airports and even at different screening locations within airports; the FAA

believes that it is important to have consistent measurements of performance at all screening locations. In addition, the FAA needs to ensure the same level of safety and continuity at all of the Nations airports and screening locations.

The success rates from TIP can be recorded and later analyzed by the FAA, the carriers, and the screening companies to continuously monitor how well the screening location is operating. For instance, the FAA might look at the success rates of the screeners detecting various kinds of test pieces, the success rates at different times of day and during different traffic levels, and the other factors that may affect screening effectiveness. TIP also serves as a continuous means of on-the-job training for screeners. Hence, not having TIP would result in a reduction in security for those small air carriers covered under this alternative in particular and for the entire aviation system in general.

Conclusion:

Under this alternative, there would be a decrease in screener effectiveness and a reduction in the number of ways to measure this decrease. This computer-based system is capable of introducing test objects to screeners on the x-ray machines at any rate set on the computer. The program can be set to run all the time that the screening location is in use. The test items can easily be added to or changed by simply loading new software into the computer. Without TIP, air carriers and screening companies would lose the ability to increase screener effectiveness and hone their skills. The FAA believes that potential cost savings would be outweighed by a reduction in security.

Alternative 5 - Proposed Rule

This alternative represents the proposed rule for direct air carriers. Under this alternative, small direct air carriers would be subject to all aspects of this proposed rulemaking. The cost of compliance expected to be incurred by the 41 small entities subject to the requirements of the proposed rule is estimated to be \$19.95 million (\$14.27 million, discounted) over the next 10 years. This alternative is preferred because the FAA believes that it has the best balance between costs and benefits for all screening companies while enhancing aviation safety and security (in the form of risk reduction) for the traveling public.

## 2. Screening Companies

### Reasons why the FAA is considering the proposed rule

The reasons are the same as those discussed above for the small air carriers.

### The objectives and legal basis for the proposed rule

The objectives and legal basis are the same as those discussed previously for the small air carriers.

### The kind and number of small entities to which the proposed rule would apply

The proposed rule applies to 66 screening companies that screen for direct air carriers subject to FAR parts 108 and 129, of which 38 are small entities (with 1,500 or fewer employees). A brief financial profile of these small entities is provided in Tables C-2 (net income) and C-3 (assets, liabilities, and financial strength ratios).<sup>96</sup>

### The projected reporting, recordkeeping, and other compliance requirements of the proposed rule

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA has submitted copies of these proposed sections to the Office of Management and Budget (OMB) for its review. Twelve proposed sections would impose paperwork costs on screening companies:

- a. **Proposed section 111.105** - would require screening companies to acknowledge receipt of the Screening Standard Security Program (SSSP) to the FAA. Screening companies would also be required to maintain copies of the SSSP at specified locations.

Screening companies would incur costs due to a clerk needing to send a letter to the FAA acknowledging receipt of the SSSP or on the decision to decide to amend the SSSP, with the time and costs for each screening company summing to 0.4 hours and \$9 for the first year and 0.3 hours and \$5 for

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<sup>96</sup> As will be described in more detail below, the FAA was not able to collect information on half of the small screening companies and was only able to obtain financial data for 19 companies. The financial data for 13 companies was incomplete, so portions had to be estimated.

each subsequent year. Each company would also need to maintain one copy of the SSSP at each airport it serves and provide a copy to each air carrier it screens for; each small screening company is located at an average of 4 airports and screens for an average of 5 air carriers. The average time and cost for each company would be 5.0 hours costing \$155 for the first year, and 0.5 hours costing \$16 in subsequent years. Over ten years, the total paperwork time and cost for each screening company would be 12.6 hours, costing \$353.

**b. Proposed section 111.107** would describe the approval and amendment process for each screening company's SSSP. This would include a requirement that screening companies submit a signed, written statement to the FAA stating that they would accept the SSSP as their security program or that they would accept the SSSP after making changes to it. This section would also describe the required process for screening companies to submit amendments to their SSSP.

Screening companies would need to submit a signed letter to the FAA about its SSSP intentions; the time and cost for each company would be 0.2 hours costing \$4 in the first year only. Companies would also need to inform the air carriers they screen for about any proposed SSSP amendments and send them a package containing these proposed amendments; each small screening company screens for an average of five air carriers. The time and cost for the average company would be 1.3 hours costing \$41 for each year. Over ten years, the total paperwork time and cost for each screening company would be 12.7 hours, costing \$414.

**c. Proposed section 111.109** would require screening companies to have certificates. All companies would apply initially for provisional certificates. Requirements are also included in this proposed section for applying for and renewing standard certificates.

Screening companies would need to spend time preparing the application for the provisional certificate; the time and cost for each company would be 6 hours costing \$148 in the first year only. Since the provisional certificate is only good for one year, each company would need to spend time applying for a standard certificate the following year. Five years later, they would need to spend time renewing this standard certificate; in both cases, they would need to spend 4.5 hours costing \$111 for this standard certificate. In all years, they would need to spend time amending their

certificate, which sum to 1.5 hours costing \$37. Hence, each screening company would need to spend 30 hours for paperwork over ten years at a cost of \$629.

**d. Proposed section 111.113** would include the content and availability requirements for the operations specifications (ops specs). Screening companies would need to prepare the ops specs; this is estimated to take 160 hours, costing each company \$4,220 in the first year. They would need to provide a copy of the ops specs to each screening location and each air carrier for which it provides screening for. The average small screening company screens at five screening checkpoints and provides screening for five air carriers, so the average small screening company would have to prepare 10 copies of its ops specs for distribution taking 0.8 hours at a cost of \$96 in the first year. They would also need to provide copies of changes to their ops specs to each screening location and each air carrier requiring 0.1 hours at a cost of \$13 in each year. Hence, over ten years, each screening company would have paperwork requirements of 161.7 hours, at a cost of \$4,446.

**e. Proposed section 111.115** would require that applicants submit their proposed ops specs to the FAA when applying for a provisional screening company certificate; this section also sets out the procedures for amending these certificates.

Each screening company would need to submit its ops specs to the FAA at an initial year cost of \$5. Each company would need to respond to the FAA's concerns and edits, requiring 9.1 hours and costing \$225 annually. Each screening company would amend its ops specs annually, requiring 64 hours costing \$3,216 annually, and would need to respond to the FAA's edits and modification, requiring 3.8 hours costing \$98 annually. Each screening company would also need to respond to the FAA's amendments to its ops specs, requiring 64 hours at a cost of \$3,216 annually. Hence, each screening company would have paperwork requirements of 140.9 hours, costing \$6,760, in the first year and 140.9 hours, costing \$6,755, in subsequent years for a ten year total of 1,409.2 hours, costing \$67,555.

**f. Proposed section 111.117** would require that screening companies allow the carrier(s) for which they are performing screening to inspect and test the performance of their screening personnel. This section would also require each screening company to provide a copy of each proposed and

each final enforcement action to each applicable carrier. The average small screening company screens for five direct air carriers. At an average of 11 actions per year, each company would need to spend 9.2 hours, costing \$235 per year on paperwork related requirements; over ten years, this sums to 91.70 hours, costing \$2,350, per company.

**g. Proposed section 111.119** would require each screening company to maintain a principal business office, and to notify the FAA in writing in advance of changing the location of its business office. The FAA expects that each screening company would move once every 3 years, so the total time for the average company would need to spend in a year would be 0.1 hours at a cost of \$1. Over ten years, these paperwork-related requirements sum to 0.5 hours, costing \$10 per company.

**i. Proposed section 111.209** Includes screening company management requirements, including requirements to designate a screening performance coordinator (SPC). Each screening company would be required to notify the FAA of any change or any vacancy regarding the SPC. The FAA assumes an annual turnover rate for SPC's of 5 percent per year, so there would be, on average, 2 new SPC's for the small screening companies each year. Over ten years, each company would need to spend 0.1 hours, costing \$2, on paperwork-related requirements.

**j. Proposed section 111.215** describes the requirements related to training tests. Each screening company would be required to ensure that each test that it administers is monitored by a direct employee of the carrier for which it screens. The average small screening company screens for 5 air carriers, so paperwork-related requirements for each air carrier comprise 0.8 hours at a cost of \$19 per year per screening company. Ten year totals, per company, sum to 8.30 hours, costing \$190.

**k. Proposed section 111.219** would require that each screening company issue a letter of completion of training to each screener upon successful completion of its approved course of training. The average small screening company has 62 screeners and 10 CSS's and would need to write an average of 1.1 letters per screener, for a total of 79 letters per year. Paperwork-related requirements, per screening company, would take 13.2 hours at a cost of \$277 per year; ten year totals sum to 131.7 hours, costing \$2,770.

**1. Proposed section 111.221** would require several items regarding screener training records. Screening companies would be required 'co make a copy of a screener's training record available to the screener upon the screener's request. Screeners would be permitted to request that their previous screening company employer send copies of their training and performance records to another screening company. In addition, screening companies **would** be permitted to directly request screener training and performance records from another screening company with a screener's written consent.

Each small screening company would have an average of one screener transferring screening companies per year, requiring 0.3 hours at a cost of \$10 per year. Ten year paperwork-related requirements sum to 2.50 hours, costing \$100 per company.

The average amount of paperwork for each small screening company totals 1,861.0 hours costing \$78,259 over ten years. Over ten years, total time and costs for all small screening companies sum to 70,718 hours costing \$2,973,836.

All Federal rules that **may** duplicate, overlap, or conflict with the proposed rule

The FAA is unaware of any Federal rules that either duplicate, overlap, or conflict with the proposed rule.

#### **Other Considerations:**

##### Affordability analysis

The previous discussion under 'Affordability Analysis' for small air carriers is applicable to small screening companies. The FAA prepared Tables C-2 (net income: columns B through E) and C-3 (working capital and financial strength ratios) to analyze the degree to which small entities can "afford" the cost of compliance.

The FAA attempted to collect financial information on small screening companies." In many cases, the data were not

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<sup>97</sup> **sources :** Air Carrier Financial Statistics Quarterly, Fourth Quarter (1995, 1996, and 1997), Bureau of Transportation Statistics, Department of Transportation; Moody's Transportation Manual, 1998; and Dun & Bradstreet - Business Information Report.



available; data were available for only 19 companies for 1994 to 1997. Of the 38 small screening companies, 8 were small air carriers that screen for themselves and other air carriers; the financial information available is the same as was used in the previous small air carrier analysis. Unfortunately, though, there is no requirement for screening companies to report their financial data as there is for air carriers, so there is no readily available source for financial information. In addition, many of these companies are privately held companies that do not have to report their assets, liabilities, profits, and revenues. The FAA was able to find some information for 11 screening companies, but the scope of the data varied extensively; some of these companies have not updated their publicly disclosed financial data in several years. For two of the companies, the most recent data publicly available were from 1993,<sup>98</sup> another had current assets and liabilities available only for 1994, while a fourth had net profits, current assets, and current liabilities available for only 1994 and 1995. In many cases, total operating revenue and quick assets were available, at most, for one year.

Another problem facing this type of financial analysis for a company that provides many services to include screening is that no matter how small a percentage of its business comes from screening the company needs to be considered under this Initial Regulatory Flexibility Analysis, if it has less than 1,500 employees. Neither finding data for such companies nor applying this data to other screening companies is straightforward. In addition, of the 19 screening companies for which the FAA had (or estimated) 1997 financial data, 8 of the 9 largest companies were small air carriers (and some of the data for these were based on estimates). Hence, it is difficult to extrapolate their financial information to makes estimations for other small screening companies.

The FAA attempted to make estimates based on the available data.<sup>99</sup> The FAA requests financial data for all screening

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<sup>98</sup> The FAA did not attempt to project this data into the 1994 to 1997 timeframe examined.

<sup>99</sup> In no case, from the data received from Dun & Bradstreet - Business Information Report, was there financial information available for all five categories (total operating revenues, net profit, current assets, current liabilities, and quick assets) for 1994 to 1997, the four years examined. For those companies with data available for more than one year, the FAA estimated the missing data by looking at the growth of current assets in previous years, where available, to project revenues,

companies, particularly those where no information was publicly available; in all cases, the FAA requests that all data be accompanied by clear documentation.

The financial information shown in Tables C-2 and C-3 suggest the following:

#### Liquidity Analysis/Profitability Analysis

- . Of the six screening companies that are also air carriers for which the FAA has complete data on, two would probably have no problem meeting the proposed rule's requirements; two might have trouble meeting the proposed rule's requirements due to their inconsistent financial performance in previous years; and two probably would have trouble meeting the proposed rule's requirements due to poor financial performance.
- The other two screening companies that also are air carriers are small regional air carriers for which, as noted previously, the FAA did not have complete data; it appears that both would probably be able to afford the cost of compliance associated with this proposed rule. This conclusion is based on their projected 1997 profitability.

As discussed above, the FAA has incomplete data on the remaining 11 screening companies and had to estimate portions of their financial data. Accordingly, these conclusions are less certain:

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current assets, and quick assets, and by looking at the growth in net profits and current liabilities to project each of these.

For those companies with data available for one year or for those companies that only had current assets and liabilities available, the FAA consulted financial data from Value Line for eight service companies. These eight companies furnish specialized personnel placement services, such as providing security, temporary employee, or staffing and outsourcing personnel. While the average size of these companies are much larger than the small screening companies, these service companies provide a proxy acceptable to the FAA as they are all in the same type of business as the screening companies, providing service personnel. From Value Line, the FAA was able to obtain data, for the four years examined, on revenues, profit, current assets, and current liabilities. Based on this data, the FAA projected data for the small entities based on average historical growth rates and ratios.

The FAA was unable to find information for four companies on quick assets for any year. These were estimated by comparing the ratio of quick assets to current assets for the other 15 companies, and applying this ratio to each company's current assets for all four years examined.

- Five of these entities have experienced increases in their net working capital as well as their current and quick ratios over the past three or four years, as shown in Table C-3. They also are generally profitable and therefore probably **would** have financial resources available to meet the requirements of this proposed rule.
- One small entity was unprofitable in 1994 but has been profitable in the last three years. Another small entity has been profitable in the past two years. Both now have positive net working capital, and their current and quick ratios have been strong. It is likely that these companies would not have trouble meeting the costs of this proposed rule.
- For two small entities, their ability to afford the cost of compliance is less certain. For one of these, while it was profitable for all four years, its net working capital as well as its current and quick ratios have been declining; in addition, it had negative net working capital in 1996 and 1997. For the other, while it has had positive net working capital for last three years, it has not been profitable in two of these three years.
- The current liquidity and profitability of two small entities would require action to finance the expected cost of compliance imposed by this NPRM. Over the past two or three years, each of these small entities has had negative net working capital. In addition, their respective current and quick **ratios** have **generally** been on a decline. They have frequently experienced financial losses.

#### Relative Cost Impact

- In looking at the annualized cost of compliance relative to the total operating revenues for each of the 8 small air carriers that also provide screening services, the FAA notes that the costs show relatively small impacts for these small entities. As shown in Table C-4, columns D through F, the annualized cost of compliance relative to total operating revenues would be less than or equal to 0.12 percent.
- In looking at the annualized cost of compliance relative to the total operating revenues for the other 11 small entities, these ratios are not as benign. As shown in

Table C-4, columns D through F, the annualized cost of compliance relative to total operating revenues would be less than or equal to 3.19 percent. This ratio for two companies exceeds 1.0 percent for all three years examined; each of these three companies was profitable for all years shown in this Table. It is important to emphasize, once again, that many of these ratios are based on estimated total operating revenues.

- Hence, for each of the small screening companies, the ratio of annualized proposed rule costs to revenues would be no more than 3.19 percent for each of the three years from 1995 through 1997. For the four screening companies that had liquidity and/or profitability problems in 1997, this ratio has been no greater than 0.38 percent over this 3-year period, so there appears to be the prospect of absorbing the cost of the proposed rule through price and production efficiencies.

No clear conclusion can be drawn with regard to the abilities of some small entities to afford the costs of compliance that would be imposed by this NPRM. On one hand, the Liquidity Analysis/Profitability Analysis does not portray a positive picture of the ability of some of the small entities impacted by this NPRM to pay near-term expenses imposed by this rule, whereas the Relative Cost Impact Analysis indicates that most of those same small entities may be able, over time, to find ways to offset the incremental costs of compliance. As the result of information ascertained from both of these analyses, there is uncertainty as to whether all of the small entities **would** be able to afford the additional costs of doing business **due to** compliance with this NPRM. Because of this uncertainty, the FAA solicits comments from screening companies (especially from small companies with less than 1,500 employees) as to what extent small companies **subject to** this NPRM **would** be able to afford the costs of compliance. The FAA requests that all comments be accompanied with clear supporting data.

#### Disproportionality analysis

Due in large part to the paucity of data from which to work, the FAA can not draw any firm conclusions concerning any of the 38 small entities would be disadvantaged relative to large screening companies due solely to disproportionate cost impacts. The FAA compared the annualized costs of the five largest screening companies to an average of annualized

costs of the small entities, and found them to be, on average, 12 times as large. This comparison was basically in line with the comparison of the total operating revenues of the largest screening companies to the average of the small entities; these average, 11 times as large for both 1996 and 1997. However, this comparison was double the comparison of current assets of the largest screening companies to the average of the small entities for these same two years; the FAA found them to be, on average, 6 times as large. This analysis suggests that large entities may be disadvantaged relative to small screening companies due to disproportionate cost impact. The FAA requests that both large and small screening companies provide additional financial data to assist the FAA in determining any financial disproportionality. As always, the FAA requests that all submitted data be accompanied with clear documentation.

#### Competitiveness analysis

This proposed rule would not impose significant costs on any small screening companies. However, due to the financial problems that certain air carriers are having, there may be some impact on the relative competitive positions of these carriers in markets served by them.

The FAA solicits comments on this issue from all screening companies and small screening companies in particular. The FAA requests that supporting data on markets and cost be provided with the comments.

#### Business closure analysis

The FAA is unable to determine with certainty the extent to which those small entities that would be significantly impacted by this proposed rule would have to close their operations. However, the profitability information shown in Table C-2 and the affordability analysis can be indicators in business closures.

In determining whether any of the 38 small entities would close business as the result of compliance with this proposed rule, one question must be answered: "Would the cost of compliance be so great as to impair an entity's ability to remain in business?" Of the information that the FAA has on 19 of these entities, four already are in serious financial difficulty. To what extent the proposed rule makes the difference in whether these entities remain in

business is difficult to answer. The FAA believes that the likelihood of business closure for any of these small screening companies, as a result of this proposed rule, is low to moderate. However, since there is uncertainty associated with whether some of the small entities would go out of business as the result of the compliance costs of this proposed rule, the FAA solicits comments from the aviation community as to the likelihood of this occurrence. As always, the FAA requests that all comments be accompanied with clear supporting data.

### Alternatives

The FAA considered alternatives to the proposed rule for small screening companies. These alternatives have compliance costs that range from \$12.73 million to \$13.10 million. Table C-5 shows the annualized costs to each of the air carriers under each alternative and whether those costs would be significant. A discussion of these alternatives follows. The first alternative is the current situation, while the fifth alternative is the proposed rule. For each of the other three alternatives, the FAA will first state the proposed alternative, followed by a discussion of the sections that would be affected, how much it would save each screening company, how much it would save all small screening companies, and why the FAA believes that the alternative would not enhance security.

#### Alternative 1 - Status Quo

Under this alternative, the FAA would exempt small screening companies from all requirements of this proposed rule. Currently, the FAA does not regulate screening companies directly. Continuing with this policy would be the least costly course of action but also would be less safe than the proposed rule and would not fulfill the Congressional mandate. The FAA believes that the threat to civil aviation within the United States has increased and that further rulemaking is necessary. Thus, this alternative is not considered to be acceptable because it permits continuation of an unacceptable level of risk to U.S. airline passengers.

Conclusion: Under this alternative, there is a possibility of a terrorist act resulting in a Class I Explosion involving large commercial airplanes that operate within the United States (discussed previously in the benefits section

to this evaluation). In addition, the FAA would not meet the Congressional mandate.

Alternative 2 - The FAA considered doing away with direct air carrier test monitoring requirements for **smaller** screening companies.

Proposed § 111.215 would require each screening company to ensure that each test is monitored by an employee of the carrier for which it screens. The screening company would be responsible for informing the applicable carrier(s) that it plans to administer a test to screener trainees. The applicable carrier(s) would be responsible for providing test monitors upon request. Under this alternative, small screening companies would not have to request a testing monitor.

This alternative would result in cost savings to all small screening companies. These companies would no longer need to write letters to the applicable direct air carrier requesting the employees to monitor the tests. This relief would save labor and postage costs of about \$10 per test per air carrier. For example, for a screening company that is providing screening services to two air carriers, this would result in annual savings of approximately \$800. Over ten years, this alternative would save all small screening companies \$357,800 (net present value, \$251,300), resulting in total compliance costs of \$12.74 million (net present value, \$8.85 million).

The FAA believes that this alternative would not enhance security. Because air carriers are ultimately responsible for ensuring the safe and proper screening of persons and property, the FAA believes that it is important to ensure air carrier involvement with critical aspects of this rulemaking. Monitoring testing is a critical aspect of this rulemaking, for it helps to prevent potential screeners passing the test by cheating and other unauthorized conduct. Removing this monitoring requirement would strongly diminish the emphasis and importance that this proposed rule places on air carrier oversight. In addition, retaining the monitoring requirement helps to support the concept of a balance of responsibilities between screening companies and the air carriers that they screen for.

Conclusion:

Under this alternative, there would be less coordination between air carriers and small screening companies. This coordination is important as it emphasizes both air carrier oversight responsibility and promotes balanced responsibilities between the carriers and screening companies. Less monitoring could result in a diminution on the importance of training and testing and could increase the possibility of cheating and other unauthorized conduct. The FAA believes that potential cost savings would be outweighed by a reduction in security.

Alternative 3 - The FAA considered not requiring that CSS's and shift supervisors of smaller screening companies complete leadership training.

Proposed § 111.205 would require persons with supervisory screening duties to have initial and recurrent training that includes leadership and management subjects. All CSS's and shift supervisors would be required to take annual classes in leadership training, which would be a new requirement. Initial training would be for 8 hours, with recurrent training lasting 3 hours. Class size would be a maximum of 20 per class. Under this alternative, small screening companies would not be required to have their CSS's and shift supervisors take this training.

This alternative would result in cost savings to all small screening companies. These companies would no longer need to pay to have their personnel take these classes or pay for leadership training instructors. For initial year training, this would result in savings of about \$60, \$90, and \$160 for each CSS and shift supervisor not trained and trainer not required, respectively, while for subsequent year training, this would result in savings of about \$20, \$30, and \$60 for the same personnel, respectively. For example, for a screening company with 10 CSS's and 1 shift supervisor (requiring 1 trainer), this alternative would result in annual savings of approximately \$900 for the initial year of the proposed rule and \$800 for all subsequent years. Over ten years, this alternative would save all small screening companies \$292,900 (net present value, \$205,000), resulting in total compliance costs of \$12.80 million (net present value, \$8.89 million).

The FAA believes that this alternative would harm security. Security is best served when competent, qualified leadership



exists at all locations, whether large or small, busy or not **busy**. There are certain core skills that CSS's and shift supervisors **need** in order to perform their responsibilities effectively, and these skills would be addressed in the leadership training, and include communication, leadership, conflict avoidance and problem resolution, and checkpoint management. In addition, incidents can happen at any type of screening location and the CSS's and shift supervisors all need to be prepared to handle them.

Conclusion:

Under this alternative, there would not be consistency of leadership at the different screening checkpoints. The FAA believes that there needs to be a uniform, effective, nationwide standard for leadership training of CSS's and shift supervisors at all screening locations; the effects of inconsistent leadership would result in incongruous screening practices leading to a possible increase in checkpoint incidents. The FAA believes that potential cost savings would be outweighed by a reduction in security.

Alternative 4 - The FAA considered not requiring that smaller screening companies obtain air carrier approval before submitting their security program amendments to the FAA.

Proposed § 111.107 would require screening companies to include in any proposed amendment packages that they send to the FAA statements that all carriers for which they screen have been advised of the proposed amendments and have no objection to them. Hence, each screening company would have to send the proposed amendment to every carrier for which it screens and respond to any changes that that carrier proposes.

This alternative would result in cost savings to all small screening companies. These screening companies would no longer have to send copies of their proposed amendments to their carriers or respond to their carrier's modifications. For the initial mailings, this would result in costs savings of about \$10 for each carrier that the screening company would no longer have to send information to. In addition, the screening company would no longer have to expend resources on any rewrites resulting from carrier modifications, saving approximately \$700 per carrier that returns the amendment with modifications. As an example, for a screening company providing screening services for two

air carriers, this would result in annual savings of approximately \$2,100. Over ten years, this alternative would save all small screening companies \$367,200 (net present value, \$258,400), resulting in total compliance costs of \$12.73 million (net present value, \$8.84 million).

The FAA believes that this alternative would harm security. Air carriers are responsible by statute for screening and would be held responsible along with the screening companies for complying with part 111 and the SSSP's. The carriers would therefore need to be kept informed about any changes to screening-related regulations, and should have the opportunity to comment on and approve of them before the FAA approves the changes. The FAA would have a difficult time holding carriers accountable for changes of which they were not made aware; this alternative would ensure that some air carriers are not made aware of all changes.

Conclusion:

Under this alternative, all carriers would not be informed of all screening-related changes to the applicable SSSP. Without the opportunity to understand and comment on the proposed changes, security could be comprised. The FAA believes that potential cost savings would be outweighed by a reduction in security.

Alternative 5 -- The Proposed Rule

This alternative represents the proposed rule for screening companies. Under this alternative, small screening companies would be subject to all aspects of this proposed rulemaking. The cost of compliance expected to be incurred by the 38 small entities subject to the requirements of the proposed rule is estimated to be \$13.10 million (net present value, \$9.10 million) over the next ten years. This alternative is preferred, because the FAA believes that it has the best balance between costs and benefits for all screening companies while enhancing aviation safety and security (in the form of risk reduction) for the flying public.

VII. International Trade Impact Statement

In accordance with the Office of Management and Budget memorandum dated March 1983, Federal agencies engaged in rulemaking activities are required to assess the effects of

regulatory changes on international trade. Since both domestic and international air carriers use screeners, this proposed rule change would have an equal effect on both.

#### VIII. Unfunded Mandates Determination

Title II of the Unfunded Mandates Reform Act of 1995 (the Act), enacted as Pub. L. 104-4 on March 22, 1995, requires each Federal agency, to the extent permitted by law, to prepare a written assessment of the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more (adjusted annually for inflation) in any one year. Section 204(a) of the Act, 2 U.S.C. 1534(a), requires the Federal agency to develop an effective process to permit timely input by elected officers (or their designees) of State, local, and tribal governments on a proposed "significant intergovernmental mandate." A "significant intergovernmental mandate" under the Act is any provision in a Federal agency regulation that would impose an enforceable duty upon State, local, and tribal governments, in the aggregate, of \$100 million (adjusted annually for inflation) in any one year. Section 203 of the Act, 2 U.S.C. 1533, which supplements section 204(a), provides that before establishing any regulatory requirements that might significantly or uniquely affect small governments, the agency shall have developed a plan that, among other things, provides for notice to potentially affected small governments, if any, and for a meaningful and timely opportunity to provide input in the development of regulatory proposals.

This proposed rule does not contain any Federal intergovernmental mandates or private sector mandates.

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## **APPENDIX A**

TABLE A-1 DATA PROJECTIONS - Related to SC's and their Employees							
Year	Number of Screeners	Number of CSS	Number of Shift Sup.	Total Screening Personnel	Screener Trainers	Number of SC's	Screeners Transferring Companies
2000	16,578	2,910	100	19,588	490	66	392
2001	16,827	2,954	102	19,882	497	69	398
2002	17,079	2,998	104	20,180	504	72	404
2003	17,335	3,043	106	20,483	512	75	410
2004	17,595	3,089	108	20,791	520	78	416
2005	17,859	3,135	110	21,103	528	81	422
2006	18,127	3,182	112	21,420	535	84	428
2007	18,399	3,230	114	21,742	544	87	435
2008	18,675	3,278	116	22,068	552	90	441
2009	18,955	3,327	118	22,399	560	93	448

TABLE A-2 Total New and Retained Screeners, CSS's, and Shift Supervisors			
Year	Total New Screeners	Total New CSS's & Shift Supervisors	Total Retained CSS's & Shift Supervisors
2000	18,485	2,539	517
2001	18,761	2,577	524
2002	19,043	2,616	533
2003	19,328	2,655	540
2004	19,618	2,695	549
2005	19,913	2,735	558
2006	20,211	2,776	566
2007	20,515	2,818	575
2008	20,822	2,860	584
2009	21,134	2,904	593

TABLE A-3 - SPECIFIC DATA ASSUMPTIONS - Employee Wages, Turnover, and Position Growth			
Position	Hourly Wage <sup>100</sup>	Annual Turnover Rate	Annual Growth Rate
SC Screener	\$6.25	110%	1.5%
Checkpoint Screener Supervisor (CSS)	\$7.31	85%	1.5%
Shift Supervisor	\$11.11	20%	1.5%
Ground Security Coordinator (GSC) <sup>101</sup>	\$24.49	5%	1.5%
Screening Performance Coordinator (SPC)	\$31.69	5%	1.5%
Site Manager	\$24.49	5%	1.5%
Paperwork/Clerk Specialist (clerk)	\$21.06	N/A	N/A
Cargo Inspection Screener	\$7.39	33%	N/A
FAA Field Agent <sup>102</sup>	\$26.96	N/A	N/A
Trainer	\$20.08	N/A	N/A

<sup>100</sup> With two exceptions, all hourly wage rates were increased by 26% to account for all fringe benefits. This fringe benefits factor was derived from Table 4-2, page 4-18, Economic Analysis of Investment and Regulatory Decision--A Guide, FAA-APO-82-1, January 1982. These exceptions are for Screeners and Checkpoint Screener Supervisors; due to their high turnover rate, base salaries were only increased by 8.65% to include FICA, Medicare, and state unemployment payments. (Because the turnover rate for cargo screeners (both physical search and x-ray) is so much lower than for SC screeners, the FAA assumes that cargo screeners receive fringe benefits of 26%.)

<sup>101</sup> The GSC' hourly salary was derived by averaging the 1995 salaries of the following positions: Customer Service Supervisor, \$24.12; Customer Service Agent, \$23.01; Ramp Supervisor, \$23.82; and Ramp Agent, \$22.56. These types of employees serve as a GSC, which in all cases is an additional duty for these persons. These salaries were inflated by the GDP deflator.

<sup>102</sup> The analysis assumes that the average FAA field agent is paid at a GS-11, using the GS PayScale for 1997. The cost requirements were obtained by multiplying the annual salary at the Step 5 level times the fringe benefits factor of 1.26 as noted above.

TABLE A-4 - ADDITIONAL DATA USED IN This ANALYSIS

Checkpoint Data

813	Domestic checkpoints
8	FAC checkpoints
821	Total checkpoints
525	Domestic SC presences
8	FAC presences
533	Total SC presences
12	Average # of checkpoints per SC
12	Average # of air carriers a SC screens for
4	Average # of air carriers per checkpoint

Air Carrier and Screening Company Data

150	Number of U.S. part 108 certificated air carrier operators
4	Number of SC's with 1000+ screeners
20	Number of SC's with 50-999 screeners
42	Number of SC's with <50 screeners
66	Total number of SC's
38	Total number of small SC's
3	Additional SC's each year after 2000
2,634	Number of Certificated Indirect Air Carrier Operators
4	Average number of locations per certificated ISC
150	Number of Certificated Direct Air Carrier Operators
24	Average number of locations per certificated DSC
3	Number of screeners per ISC and DSC location
1	Screener turnover per ISC and DSC location
145	Part 129 Foreign Air Carriers (FAC's)
7	FAC's that screen their own checkpoints

Equipment Data

\$395	Improvised Explosive Device (IED) test kit
\$162	Standard kit
\$70,000	Specially constructed x-ray machine for oversized items
\$179	Stepwedge
\$44,700	TIP/compatible x-ray machine:
	\$6,800      TIP
	\$37,900      x-ray System
\$1,000	Original test CD
\$1	Copies of test CD
\$1,200	New Computer
\$100	Make computer compatible with CD-ROM
\$5,000	Salvage value for current x-ray machines
\$1,500	Printer for local area network (LAN)
\$1,200	Printer for non-LAN
\$15,000	LAN set-up

<b>Table A-5 - Cost of Proposed Rule for Screening Companies over Ten Years (1997 dollars)</b>		
<b>Part Number</b>	<b>Total Costs</b>	<b>Discounted Costs</b>
111.5	\$0	\$0
111.105	\$31,562	\$24,010
111.107	\$5,154,108	\$3,567,674
111.109	\$29,899	\$21,201
111.113	\$146,693	\$120,525
111.115	\$2,490,273	\$1,730,477
111.117	\$282,638	\$194,365
111.119	\$1,060	\$728
111.201	\$0	\$0
111.205	\$8,291,435	\$5,783,090
111.209	\$18,476,887	\$12,786,023
111.213	\$6,551,072	\$4,559,100
111.215	\$3,344,392	\$2,312,639
111.219	\$1,214,214	\$845,787
111.221	\$131,375	\$91,519
111.223	\$0	\$0
108/109.103	\$0	\$0
109.105	\$0	\$0
108.201/109.203	\$0	\$0
108.205/109.207	\$0	\$0
108.229/109.205	\$0	\$0
<b>TOTAL</b>	<b>\$46,145,609</b>	<b>\$32,037,138</b>



<b>Table A-6 -Cost of Proposed Rule for Direct Air Carriers over Ten Years (1997 dollars)</b>		
<b>Part Number</b>	<b>Total Costs</b>	<b>Discounted Costs</b>
111.5	\$0	\$0
111.105	\$4,722	\$3,756
111.107	\$36,804,419	\$25,317,140
111.109	\$5,545	\$4,042
111.113	\$22,624	\$19,790
111.115	\$212,830	\$149,950
111.117	\$5,908,390	\$4,149,806
111.119	\$200	\$139
111.201	\$0	\$0
111.205	\$217,458	\$153,735
111.209	\$4,963,852	\$3,486,903
111.213	\$311,649	\$217,031
111.215	\$23,941	\$17,741
111.219	\$42,650	\$29,956
111.221	\$5,070	\$3,562
111.223	\$0	\$0
108/109.103	\$2,794,448	\$1,964,170
109.105	\$0	\$0
108.201/109.203	\$18,799,802	\$13,843,754
108.205/109.207	\$41,427,100	\$34,299,081
108.229/109.205	\$8,452,514	\$5,911,073
<b>TOTAL</b>	<b>\$119,997,214</b>	<b>\$89,571,629</b>

<b>Table A-7 - Cost of Proposed Rule for Indirect Air Carriers over Ten Years (1997 dollars)</b>		
<b>Part Number</b>	<b>Total Costs</b>	<b>Discounted Costs</b>
111.5	\$0	\$0
111.105	\$29,313	\$22,605
111.107	\$5,896,163	\$4,184,664
111.109	\$97,593	\$71,143
111.113	\$344,344	\$307,089
111.115	\$2,583,176	\$1,822,530
111.117	\$4,131,784	\$3,004,436
111.119	\$3,520	\$2,472
111.201	\$1,012,761	\$711,321
111.205	\$637,646	\$450,770
111.209	\$43,825,968	\$30,791,029
111.213	\$913,438	\$636,121
111.215	\$70,236	\$52,048
111.219	\$125,100	\$87,866
111.221	\$14,890	\$10,459
111.223	\$0	\$0
108/109.103	\$9,791,069	\$6,882,000
109.105	\$14,770	\$10,374
108.201/109.203	\$1,476,270	\$1,078,139
108.205/109.207	\$27,755,442	\$22,721,078
108.229/109.205	\$473,850	\$332,813
<b>TOTAL</b>	<b>\$99,197,333</b>	<b>\$73,178,957</b>

Table A-8 -Cost of Proposed Rule for Foreign Air Carriers over Ten Years (1997 dollars)		
Part Number	Total costs	Discounted C o s t s
111.105	\$0	\$0
111.107	\$280,220	\$196,814
111.109	\$0	\$0
111.113	\$0	\$0
111.115	\$0	\$0
111.117	\$40,960	\$28,769
111.119	\$0	\$0
111.201	\$0	\$0
111.205	\$0	\$0
111.209	\$0	\$0
111.213	\$0	\$0
111.215	\$0	\$0
111.219	\$0	\$0
111.221	\$0	\$0
111.223	\$0	\$0
108/109.103	\$2,700,587	\$1,898,198
109.105	\$0	\$0
108.201/109.203	\$777,216	\$588,983
108.205/109.207	\$211,886	\$180,111
108.229/109.205	\$114,880	\$80,687
<b>TOTAL</b>	<b>\$4,125,749</b>	<b>\$2,973,562</b>

<b>Table A-9 - Cost of Proposed Rule for the FAA over Ten Years (1997 dollars)</b>		
<b>Part Number</b>	<b>Total Costs</b>	<b>Discounted Costs</b>
111.5	\$10,102,300	\$7,095,433
111.105	\$0	\$0
111.107	\$0	\$0
111.109	\$0	\$0
111.113	\$0	\$0
111.115	\$0	\$0
111.117	\$0	\$0
111.119	\$0	\$0
111.201	\$0	\$0
111.205	\$0	\$0
111.209	\$0	\$0
111.213	\$0	\$0
111.215	\$0	\$0
111.219	\$0	\$0
111.221	\$0	\$0
111.223	\$20,455,260	\$14,366,921
108/109.103	\$0	\$0
109.105	\$0	\$0
108.201/109.203	\$0	\$0
108.205/109.207	\$0	\$0
108.229/109.205	\$0	\$0
<b>TOTAL</b>	<b>\$30,557,560</b>	<b>\$21,462,354</b>

Exhibit 1 ~ Alternative TIP Download Option for \$ 111.223

All TIP-related data would be electronically downloaded through the use of modems and local area networks (LAN's). Networks would have to be installed at any screening location that has 2 or more x-ray systems. All Type A(>2) and most Type A(<2) airports would need networks installed; no Type B airport and no DSC and ISC screening sites would require the LAN as each site would only have one x-ray machine present. In addition to LAN costs, all sites would require a modem and additional cabling, and the FAA estimates that 1/4 of the sites would require the services of a telephone technician for new telephone wiring. Finally, each x-ray system would require specific software, to effect this downloading, and periodic software upgrades. The equipment to be purchased and maintained<sup>103</sup> is listed below:

- . Network costs include \$10,800 for the server; \$1,915 for the port network hub; \$140 (per machine) for the network card; and cabling costs, which would range \$2,800 to \$10,000 depending on the number of machines and whether a network would be needed;
- . Downloading costs include \$120 for a modem (this is required for each screening site), \$150,660 for the development cost for the software, and \$12,555 for biannual software upgrades;
- . Additional costs for each site include \$1,080 for labor installation (per machine); \$75 for shipping (per machine); and, for those sites that would need them, telephone wiring related cost?. These wiring costs would consist of \$42 for the telephone technician visit, \$20 for the monthly phone service charge, from \$24 to \$80 to process the ordering of the network connection (depending on the complexity), and from \$48 to \$264 for the technician's time (again, depending on the complexity).

The tenyear costs for software development and upgrades sum to \$200,900 and for installation and maintenance at SC, DSC, and ISC sites sum to \$16.40 million, \$163,200, and \$448,900, respectively. Total ten year costs sum to \$17.21 million (net present value, \$14.15 million).

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<sup>103</sup> Annual maintenance costs for all equipment is assumed to be 10% of the purchase price.

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## **APPENDIX B - Small Air Carriers**

**TABLE B-I**  
**SUMMARY OF INITIAL RFA DETERMINATION OF ECONOMIC IMPACT**  
(1997 Dollars, Discounted, 10 Years, 7%)

Air Carrier	Number of Employees	1% of 1997 Median Impacted Small Business Annual Revenues	Annualized Cost of Compliance	Significant Economic Impact? Y/N
<b>No. NATIONALS:</b>				
1 AIR WISCONSIN	600	\$809,610	\$2,862	N
2 BUSINESS EXPRESS INC.	1,200	\$809,610	\$13,201	N
3 EXECUTIVE AIRLINES	1,446	\$809,610	\$66,939	N
4 MESA AIRLINES	1,450	\$809,610	\$389,899	N
5 MIDWAY AIRLINES CORP.	500	\$809,610	\$1,489	N
6 RENO AIR	120	\$809,610	\$51,466	N
7 SHUTTLE INC. [USAIRWAYS INC.]	650	\$809,610	\$32,559	N
8 SUN COUNTRY AIRLINES	1,000	\$809,610	\$48,891	N
9 TRANS STATES AIRLINES	1,500	\$809,610	\$180,998	N
10 WORLD AIRWAYS	725	\$809,610	\$1,489	N
<b>LARGE REGIONALS</b>				
11 AIR TRAN AIRWAYS	506	\$809,610	\$29,951	N
12 EXPRESS ONE INTERNATIONAL INC.	1,000	\$809,610	\$10,491	N
13 FRONTIER AIRLINES	600	\$809,610	\$1,489	N
14 MESABA AVIATION INC.	1,350	\$809,610	\$106,548	N
15 MIAMI AIR INTERNATIONAL	160	\$809,610	\$1,489	N
16 NORTH AMERICAN AIRLINES	160	\$809,610	\$1,489	N
17 REEVE ALEUTIAN AIRWAYS INC.	240	\$809,610	\$46,971	N
18 SPIRIT AIRLINES INC.	400	\$809,610	\$1,489	N
19 UFS INC.	400	\$809,610	\$8,591	N
20 VANGUARD AIRLINES	568	\$809,610	\$28,703	N
<b>MEDIUM REGIONALS</b>				
21 CASINO EXPRESS [TEM ENTERPRISES]	102	\$809,610	\$9,996	N
22 EASTWIND AIRLINES	75	\$809,610	\$15,523	N
23 SIERRA PACIFIC AIRLINES	30	\$809,610	\$1,489	N
24 SUN PACIFIC INTL	50	\$809,610	\$1,489	N

SMALL REGIONALS					
25	AIR MIDWEST	225	\$809,610	\$32,476	N
26	ALLEGHENY COMMUTER	1,100	\$809,610	\$67,083	N
27	ASTRAL AVIATION INC.	216	\$809,610	\$1,489	N
28	ATLANTIC COAST AIRLINES	1,300	\$809,610	\$1,489	N
29	BIG SKY AIRLINES	75	\$809,610	\$13,602	N
30	CCAIR INC.	600	\$809,610	\$113,679	N
31	CHAMPLAIN ENT	340	\$809,610	\$58,387	N
32	CHAUTAUQUA AIRLINES	320	\$809,610	\$64,195	N
33	CHICAGO EXPRESS AIRLINES	100	\$809,610	\$1,489	N
34	COLGAN AIRWAYS CORP.	140	\$809,610	\$7,016	N
35	CORPORATE EXPRESS	51	\$809,610	\$1,489	N
36	ERA AVIATION INC.	160	\$809,610	\$1,489	N
37	GREAT LAKES AVIATION LTD	1,100	\$809,610	\$507,204	N
38	GULFSTREAM INTERNATIONAL AIRLINES	650	\$809,610	\$1,489	N
39	PARADISE ISLAND AIR	125	\$809,610	\$1,489	N
40	WEST AIR COMMUTER AIRLINES	1,111	\$809,610	\$87,348	N
41	WINGS WEST AIRLINES	1,300	\$809,610	\$15,007	N

<sup>1</sup> Annualized using a capital recovery factor of 0.14785, over 10 years, using a 7 percent rate of interest.

**TABLE B-2**  
**SUMMARY OF FINANCIAL PROFILE OF PART 108 SMALL ENTITIES: Net income (Profits and Losses)**

Air Carrier (Total Operations)		Domestic Operations: Net income or (Loss)* 1994, \$000	Domestic Operations: Net income or (Loss)* 1995, \$000	Domestic Operations: Net income or (Loss)* 1996, \$000	Domestic Operations: Net income or (Loss)* 1997, \$000	1 O-Year Annualized Cost of Compliance (1997, \$000)	Significant Economic Impact? Y/N	Likelihood of Business Closure Due to Compliance with NPRM
Column A		Column B	Column C	Column D	Column E	Column F	Column G	Column H
<b>No.</b>	<b>NATIONALS (10):</b>							
1	AIR WISCONSIN AIRLINES CORP.	\$2,476	\$3,124	\$3,790	\$3,669	\$3	N	Low
2	BUSINESS EXPRESS INC.	\$15,212	(\$12,480)	(\$9,136)	(\$7,756)	\$13	N	Low
3	EXECUTIVE AIRLINES	(\$1,481)	(\$10,796)	\$16,200	\$1,742	\$67	N	Low
4	MESA AIRLINES	\$27,688	\$10,075	\$421	(\$13,553)	\$390	Y	Moderate
5	MIDWAY AIRLINES CORP.	(\$21,657)	(\$18,437)	(\$4,496)	\$24,950	\$1	N	Low
6	RENO AIR	(\$13,993)	\$1,818	\$2,031	(\$11,628)	\$51	N	Low
7	SHUTTLE INC. [USAIRWAYS INC.]	\$5,365	\$5,843	\$9,483	\$2,794	\$33	N	Low
8	SUN COUNTRY AIRLINES	\$2,682	\$2,087	(\$2,258)	(\$11,687)	\$49	N	Moderate
9	TRANS STATES AIRLINES	\$18,502	\$11,668	\$25,717	\$24,690	\$181	Y	Low
10	WORLD AIRWAYS	\$7,890	\$8,902	(\$12,913)	\$11,265	\$1	N	Low
	<b>LARGE REGIONALS (10):</b>							
11	AIR TRAN AIRWAYS	(\$1,514)	(\$2,807)	(\$6,529)	(\$15,344)	\$30	N	Moderate
12	EXPRESS ONE INTERNATIONAL INC.	\$4,245	(\$82)	(\$2,722)	(\$1,281)	\$10	N	Low
13	FRONTIER AIRLINES	(\$5,046)	(\$8,208)	(\$8,080)	(\$18,945)	\$1	N	Low
14	MESABA AVIATION INC.	\$3,663	\$2,606	\$56,275	\$11,038	\$107	Y	Low
15	MIAMI AIR INTERNATIONAL	\$3,036	\$3,706	\$2,431	\$517	\$1	N	Low
16	NORTH AMERICAN AIRLINES	\$275	\$508	\$899	\$1,002	\$1	N	Low
17	REEVE ALEUTIAN AIRWAYS INC.	(\$1,967)	(\$1,517)	(\$1,930)	(\$2,714)	\$47	N	Moderate
18	SPIRIT AIRLINES INC.	\$1,762	\$2,684	(\$4,818)	\$895	\$1	N	Low
19	UFS INC.	\$1,347	\$1,840	\$1,740	\$549	\$9	N	Low
20	VANGUARD AIRLINES	(\$3,028)	(\$11,382)	(\$24,057)	(\$28,246)	\$29	N	Moderate



<b>MEDIUM REGIONALS (4):</b>							
21	CASINO EXPRESS [TEM ENTERPRISES]	(\$4,532)	(\$1,647)	(\$309)	(\$2,655)	\$10	N Low
22	EASTWIND AIRLINES	Didn't operate	(\$2,711)	(\$5,051)	(\$6,557)	\$16	N Low
23	SIERRA PACIFIC AIRLINES	(\$69)	(\$198)	\$835	(\$781)	\$1	N Low
24	SUN PACIFIC INTL	(\$7,322)	(\$3,749)	(\$722)	\$871	\$1	N Low
<b>SMALL REGIONALS (17):</b>							
25	AIR MIDWEST	\$5,216	\$824	\$754	\$1,113	\$32	N Low
26	ALLEGHENY COMMUTER	(\$136)	\$26,832	\$24,551	\$36,250	\$67	N Low
27	ASTRAL AVIATION INC.	\$1,162	\$1,733	\$1,586	\$2,341	\$1	N Low
28	ATLANTIC COAST AIRLINES	\$12,902	\$25,136	\$12,902	\$19,158	\$1	N Low
29	BIG SKY AIRLINES	\$76	\$53	\$4	\$198	\$14	N Low
30	CCAIR INC.	\$4,756	\$362	\$96	\$520	\$114	Y Low
31	CHAMPLAIN ENT	\$55,088	(\$2,287)	(\$2,093)	(\$3,090)	\$58	N Moderate
32	CHAUTAUQUA AIRLINES	(\$759,918)	\$1,313	\$1,201	\$1,774	\$64	N Low
33	CHICAGO EXPRESS AIRLINES	(\$1,847)	(\$2,152)	(\$1,969)	(\$2,907)	\$1	N Low
34	COLGAN AIRWAYS CORP.	(\$25)	\$70	\$64	\$95	\$7	N Low
35	CORPORATE EXPRESS	Didn't operate	Didn't operate	Didn't operate	\$9,537	\$1	N Low
36	ERA AVIATION INC.	\$2,238	(\$8,757)	(\$8,013)	(\$11,831)	\$1	N Low
37	GREAT LAKES AVIATION LTD	\$404	\$2,687	\$12,823	\$18,271	\$507	Y Low
38	GULFSTREAM INTERNATIONAL AIRLINES	\$267	(\$1,232)	(\$1,127)	(\$1,664)	\$1	N Low
39	PARADISE ISLAND AIR	(\$388)	(\$1,164)	(\$1,065)	(\$1,573)	\$1	N Low
40	WEST AIR COMMUTER AIRLINES	\$3,713	\$5,923	\$5,420	\$8,002	\$87	Y Low
41	WINGS WEST AIRLINES	\$484	(\$2,993)	(\$2,739)	(\$4,044)	\$15	N Low

\* Financial information was obtained from the Air Carrier Financial Quarterly for 1994-1997 (4th Quarter: December '94 to December '97), Bureau of Transportation Statistics, Office of Airline Information, U.S. Dept. of Transportation and Moody's Transportation Manual, 1996-1998. All figures in italics are estimates.

**TABLE B-3 - SUMMARY OF FINANCIAL PROFILE OF PART 108 SMALL ENTITIES: Assets, Liabilities, and Financial Strength Ratios**

Air Carrier (Total Operations)		Current Assets 1994, \$000	Current Liabilities 1994, \$000	Quick Assets 1994, \$000	Current Assets 1995, \$000	Current Liabilities 1995, \$000	Quick Assets 1995, \$000	Current Assets 1996, \$000	Current Liabilities 1996, \$000	Quick Assets 1996, \$000	Current Assets 1997, \$000	Current Liabilities 1997, \$000	Quick Assets 1997, \$000
<b>NATIONALS</b>													
1	AIR WISCONSIN AIRLINES	\$13,376	\$9,966	\$6,091	\$16,126	\$12,663	\$8,935	\$15,693	\$12,624	\$7,893	\$14,736	\$12,601	\$6,847
	Net Working Capital	\$3,410			\$3,463			\$3,069			\$2,135		
	Current Ratio		1.34			1.27			1.24			1.17	
	Quick Ratio			0.61			0.71			0.63			0.54
2	BUSINESS EXPRESS INC.	\$9,650	\$33,397	\$895	\$10,731	\$40,076	\$5,819	\$18,906	\$51,507	\$7,773	\$54,776	\$46,740	\$34,066
	Net Working Capital	(\$23,747)			(\$29,345)			(\$32,601)			\$8,036		
	Current Ratio		0.29			0.27			0.37			1.17	
	Quick Ratio			0.03			0.15			0.15			0.73
3	EXECUTIVE AIRLINES	\$15,207	\$23,353	\$4,931	\$10,550	\$39,827	\$812	\$9,656	\$24,514	\$247	\$19,448	\$25,196	\$13,695
	Net Working Capital	(\$8,146)			(\$29,277)			(\$14,858)			(\$5,748)		
	Current Ratio		0.65			0.26			0.39			0.77	
	Quick Ratio			0.21			0.02			0.01			0.54
4	MESA AIRLINES	\$173,518	\$43,720	\$98,611	\$116,019	\$32,632	\$94,721	\$118,820	\$56,792	\$91,918	\$166,703	\$98,142	\$65,922
	Net Working Capital	\$129,798			\$83,387			\$62,028			\$68,561		
	Current Ratio		3.97			3.56			2.09			1.70	
	Quick Ratio			2.26			2.90			1.62			0.67
5	MIDWAY AIRLINES CORP.	\$14,709	\$4,238	\$12,987	\$20,316	\$55,764	\$16,571	\$25,665	\$65,377	\$19,040	\$74,957	\$52,804	\$66,125
	Net Working Capital	\$10,471			(\$35,448)			(\$39,712)			\$22,153		
	Current Ratio		3.47			0.36			0.39			1.42	
	Quick Ratio			3.06			0.30			0.29			0.25
6	RENO AIR	\$33,661	\$47,826	\$25,103	\$72,064	\$53,807	\$57,151	\$56,078	\$67,015	\$37,375	\$86,678	\$80,397	\$54,485
	Net Working Capital	(\$14,165)			\$18,257			(\$10,937)			\$6,281		
	Current Ratio		0.70			1.34			0.84			1.08	
	Quick Ratio			0.52			1.06			0.56			0.68
7	SHUTTLE INC. [USAIRWAYS INC.]	\$8,711	\$22,611	\$7,011	\$10,429	\$19,534	\$7,029	\$8,897	\$24,182	\$7,381	\$5,721	\$19,305	\$5,100
	Net Working Capital	(\$13,900)			(\$9,105)			(\$15,285)			(\$13,584)		
	Current Ratio		0.39			0.53			0.37			0.30	
	Quick Ratio			0.31			0.36			0.31			0.26
8	SUN COUNTRY AIRLINES	\$20,082	\$28,159	\$17,297	\$24,244	\$28,782	\$21,400	\$24,633	\$32,078	\$21,020	\$26,666	\$50,946	\$21,146
	Net Working Capital	(\$8,077)			(\$4,538)			(\$7,445)			(\$24,280)		
	Current Ratio		0.71			0.84			0.77			0.52	
	Quick Ratio			0.61			0.74			0.66			0.42

9	TRANS STATES AIRLINES	\$40,773	\$21,135	\$35,745	\$43,116	\$22,348	\$38,850	\$51,545	\$26,077	\$46,672	\$44,490	\$25,357	\$39,142
	Net Working Capital	\$19,638			\$20,768			\$25,468			\$19,133		
	Current Ratio		1.93			1.93			1.98			1.75	
	Quick Ratio			1.69			1.74			1.79			1.54
10	WORLD AIRWAYS	\$20,069	\$48,638	\$13,173	\$54,848	\$65,096	\$45,223	\$43,924	\$739,890	\$36,559	\$53,585	\$55,909	\$34,132
	Net Working Capital	(\$28,569)			(\$10,248)			(\$695,966)			(\$2,324)		
	Current Ratio		0.41			0.84			0.06			0.96	
	Quick Ratio			0.27			0.69			0.05			0.61
<b>LARGE REGIONALS</b>													
11	AIR TRAN AIRWAYS	\$18,464	\$4,620	(\$602)	\$27,949	\$20,105	\$23,087	\$22,277	\$27,732	\$13,059	\$21,528	\$109,498	\$12,626
	Net Working Capital	\$13,844			\$7,844			(\$5,455)			(\$87,970)		
	Current Ratio		4.00			1.39			0.80			0.20	
	Quick Ratio			-0.13			1.15			0.47			0.12
12	EXPRESS ONE INTERNATIONAL INC.	\$35,276	\$44,322	\$23,243	\$28,988	\$47,219	\$24,726	\$17,455	\$17,363	\$14,504	\$21,433	\$15,287	\$15,695
	Net Working Capital	(\$9,046)			(\$18,231)			\$92			\$6,146		
	Current Ratio		0.80			0.61			1.01			1.40	
	Quick Ratio			0.52			0.52			0.84			1.03
13	FRONTIER AIRLINES	\$11,771	\$8,332	\$10,867	\$12,384	\$18,539	\$9,807	\$21,613	\$30,668	\$17,318	\$17,609	\$48,170	\$11,352
	Net Working Capital	\$3,439			(\$6,155)			(\$9,055)			(\$30,561)		
	Current Ratio		1.41			0.67			0.70			0.37	
	Quick Ratio			1.30			0.53			0.56			0.24
14	MESABA AVIATION INC.	\$42,942	\$11,674	\$28,412	\$46,154	\$17,052	\$30,616	\$44,465	\$17,323	\$38,682	\$83,131	\$41,150	\$74,045
	Net Working Capital	\$31,268			\$29,102			\$27,142			\$41,981		
	Current Ratio		3.68			2.71			2.57			2.02	
	Quick Ratio			2.43			1.80			2.23			1.80
15	MIAMI AIR INTERNATIONAL	\$11,669	\$9,018	\$5,817	\$14,310	\$11,237	\$8,037	\$18,938	\$19,000	\$8,715	\$16,112	\$19,155	\$8,330
	Net Working Capital	\$2,651			\$3,073			(\$62)			(\$3,043)		
	Current Ratio		1.29			1.27			1.00			0.84	
	Quick Ratio			0.65			0.72			0.46			0.43
16	NORTH AMERICAN AIRLINES	\$2,818	\$2,830	\$2,405	\$4,748	\$4,131	\$3,874	\$6,648	\$5,106	\$5,358	\$9,223	\$6,922	\$7,501
	Net Working Capital	(\$12)			\$617			\$1,542			\$2,301		
	Current Ratio		1.00			1.15			1.30			1.33	
	Quick Ratio			0.85			0.94			1.05			1.08
17	REEVE ALEUTIAN AIRWAYS INC.	\$6,351	\$5,076	\$3,032	\$10,503	\$10,093	\$9,826	\$4,920	\$6,618	\$2,638	\$6,078	\$9,653	\$3,668
	Net Working Capital	\$1,275			\$410			(\$1,698)			(\$3,575)		
	Current Ratio		1.25			1.04			0.74			0.63	
	Quick Ratio			0.60			0.97			0.40			0.38

18	SPIRIT AIRLINES INC.	\$8,360	\$8,204	\$7,860	\$8,297	\$11,643	\$4,463	\$9,223	\$17,595	\$5,539	\$13,601	\$21,411	\$9,524
	Net Working Capital	\$156			(\$3,346)			(\$8,372)			(\$7,810)		
	Current Ratio		1.02			0.71			0.62			0.67	
	Quick Ratio			0.96			0.38			0.31			0.44
19	UFS INC.	\$7,164	\$6,620	\$4,577	\$8,977	\$8,803	\$5,602	\$9,671	\$8,941	\$6,262	\$11,279	\$8,714	\$7,884
	Net Working Capital	\$544			\$174			\$730			\$2,565		
	Current Ratio		1.08			1.02			1.08			1.29	
	Quick Ratio			0.69			0.64			0.70			0.90
20	VANGUARD AIRLINES	\$2,194	\$2,033	\$1,549	\$9,861	\$8,704	\$5,132	\$11,943	\$33,553	\$5,679	\$12,028	\$34,120	\$3,750
	Net Working Capital	\$161			\$1,157			(\$21,610)			(\$22,092)		
	Current Ratio		1.08			1.13			0.33			0.35	
	Quick Ratio			0.76			0.59			0.17			0.11

#### MEDIUM REGIONALS

21	CASINO EXPRESS [TEM ENTERPRISES]	\$1,468	\$1,877	\$415	\$1,352	\$1,374	\$1,044	\$525	\$797	\$194	\$1,391	\$948	\$1,145
	Net Working Capital	(\$409)			(\$22)			(\$272)			\$443		
	Current Ratio		0.78			0.98			0.66			1.47	
	Quick Ratio			0.22			0.76			0.24			1.21
22	EASTWIND AIRLINES	Didn't operate	Didn't operate	Didn't operate	\$2,225	\$3,148	\$1,878	\$2,119	\$6,809	\$513	\$4,287	\$7,412	\$544
	Net Working Capital				(\$923)			(\$4,690)			(\$3,125)		
	Current Ratio					0.71			0.31			0.58	
	Quick Ratio						0.60			0.08			0.07
23	SIERRA PACIFIC AIRLINES	\$2,331	\$1,353	\$2,227	\$2,103	\$1,202	\$1,860	\$3,350	\$1,303	\$3,163	\$1,495	\$1,861	\$1,310
	Net Working Capital	\$978			\$901			\$2,047			(\$366)		
	Current Ratio		1.72			1.75			2.57			0.80	
	Quick Ratio			1.65			1.55			2.43			0.70
24	SUN PACIFIC INTL	\$5,176	\$2,375	\$4,295	\$8,698	\$6,907	\$6,600	\$1,537	\$2,481	\$842	\$3,983	\$4,369	\$1,765
	Net Working Capital	\$2,800			\$1,791			(\$944)			(\$386)		
	Current Ratio		2.18			1.26			0.62			0.91	
	Quick Ratio			1.81			0.96			0.34			0.40

#### SMALL REGIONALS

25	AIR MIDWEST	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84

26	ALLEGHENY COMMUTER	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
27	ASTRAL AVIATION INC.	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
28	ATLANTIC COAST AIRLINES	\$23,185	\$27,673	\$15,957	\$26,611	\$22,059	\$23,003	\$26,611	\$22,059	\$23,003	\$41,744	\$23,962	\$37,431
	Net Working Capital	(\$4,488)			\$4,552			\$4,552			\$17,782		
	Current Ratio		0.84			1.21			1.21			1.74	
	Quick Ratio			0.58			1.04			1.04			1.56
29	BIG SKY AIRLINES	\$1,771	\$1,033	\$1,084	\$1,482	\$824	\$777	\$1,513	\$852	\$788	\$1,845	\$953	\$1,145
	Net Working Capital	\$738			\$658			\$661			\$892		
	Current Ratio		1.71			1.80			1.78			1.94	
	Quick Ratio			1.05			0.94			0.92			1.20
30	CCAIR INC.	\$9,713	\$10,272	\$57	\$14,154	\$15,525	\$11,047	\$14,165	\$15,525	\$10,997	\$13,458	\$17,079	\$10,534
	Net Working Capital	(\$559)			(\$1,371)			(\$1,360)			(\$3,621)		
	Current Ratio		0.95			0.91			0.91			0.79	
	Quick Ratio			0.01			0.71			0.71			0.62
31	CHAMPLAIN ENT	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
32	CHAUTAUQUA AIRLINES	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
33	CHICAGO EXPRESS AIRLINES	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
34	COLGAN AIRWAYS CORP.	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
35	CORPORATE EXPRESS	Didn't operate	Didn't operate	Didn't operate	Didn't operate	Didn't operate	Didn't operate	Didn't operate	Didn't operate	Didn't operate	\$19,470	\$17,105	\$14,285
	Net Working Capital										\$2,365		
	Current Ratio											1.14	
	Quick Ratio												0.84

36	ERA AVIATION INC.	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
37	GREAT LAKES AVIATION LTD	\$24,473	\$13,858	\$4,851	\$27,040	\$14,901	\$15,264	\$28,872	\$28,270	\$6,676	\$20,832	\$26,427	\$8,031
	Net Working Capital	\$10,615			\$12,139			\$602			(\$5,595)		
	Current Ratio		1.77			1.81			1.02			0.79	
	Quick Ratio			0.35			1.02			0.24			0.30
38	GULFSTREAM INTERNATIONAL AIRLINES	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
39	PARADISE ISLAND AIR	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
40	WEST AIR COMMUTER AIRLINES	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
41	WINGS WEST AIRLINES	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84

Note: All figures in italics are estimates

**TABLE B-4**  
**SUMMARY OF FINANCIAL PROFILE OF PART 108 SMALL ENTITIES: Total Operating Revenues and Net Income (Profits and Losses)**

Air Carrier (Total Operations)	***Total Operating Revenues***			Percentage of Compliance Costs of ***Total Revenues By Air Carrier and Year***			*** Net Income ***			10-Year Annualized Cost of Compliance
	Operations: Total Oper. Revenues	Operations: Total Oper. Revenues	Operations: Total Oper. Revenues	Percentage of Costs of Tot. Revenues (Col. J/Col. A)	Percentage of Costs of Tot. Revenues (Col. J/Col. B)	Percentage of Costs of Tot. Revenues (Col. J/Col. C)	Operations: Net income (Loss)	Operations: Net income (Loss)	Operations: Net income (Loss)	
	1995, \$000	1996, \$000	1997, \$000	1995	1996	1997	1995, \$000	1996, \$000	1997, \$000	
	Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J
<b>No. NATIONALS:</b>										
1 AIR WISCONSIN	\$120,079	\$132,442	\$140,892	0.00%	0.00%	0.00%	\$3,124	\$3,790	\$3,669	\$3
2 BUSINESS EXPRESS INC.	\$180,756	\$34,802	\$30,556	0.01%	0.04%	0.04%	(\$12,480)	(\$9,136)	(\$7,756)	\$13
3 EXECUTIVE AIRLINES	\$120,706	\$132,211	\$31,242	0.06%	0.05%	0.21%	(\$10,796)	\$16,200	\$1,742	\$67
4 MESA AIRLINES	\$172,895	\$394,938	\$177,820	0.23%	0.10%	0.22%	\$10,075	\$421	(\$13,553)	\$390
5 MIDWAY AIRLINES CORP.	\$128,648	\$179,014	\$186,276	0.00%	0.00%	0.00%	(\$18,437)	(\$4,496)	\$24,950	\$1
6 RENO AIR	\$259,148	\$351,188	\$387,836	0.02%	0.01%	0.01%	\$1,818	\$2,031	(\$11,628)	\$51
7 SHUTTLE INC.	\$144,035	\$157,221	\$173,406	0.02%	0.02%	0.02%	\$5,843	\$9,483	\$2,794	\$33
8 SUN COUNTRY AIRLINES	\$202,199	\$207,987	\$228,833	0.02%	0.02%	0.02%	\$2,087	(\$2,258)	(\$11,687)	\$49
9 TRANS STATES AIRLINES	\$141,823	\$189,871	\$208,365	0.13%	0.10%	0.09%	\$11,668	\$25,717	\$24,690	\$181
10 WORLD AIRWAYS	\$259,481	\$356,409	\$309,412	0.00%	0.00%	0.00%	\$8,902	(\$12,913)	\$11,265	\$1
<b>LARGE REGIONALS</b>										
11 AIR TRAN AIRWAYS	\$46,844	\$111,646	\$105,597	0.06%	0.03%	0.03%	(\$2,807)	(\$6,529)	(\$15,344)	\$30
12 EXPRESS ONE INTERNATIONAL INC.	\$96,236	\$67,391	\$99,915	0.01%	0.02%	0.01%	(\$82)	(\$2,722)	(\$1,281)	\$10
13 FRONTIER AIRLINES	\$55,850	\$109,511	\$138,323	0.00%	0.00%	0.00%	(\$8,208)	(\$8,080)	(\$18,945)	\$1
14 MESABA AVIATION INC.	\$145,900	\$170,455	\$147,385	0.07%	0.06%	0.07%	\$2,606	\$56,275	\$11,038	\$107
15 MIAMI AIR INTERNATIONAL	\$49,467	\$67,249	\$72,342	0.00%	0.00%	0.00%	\$3,706	\$2,431	\$517	\$1
16 NORTH AMERICAN AIRLINES	\$35,497	\$42,732	\$51,333	0.00%	0.00%	0.00%	\$508	\$899	\$1,002	\$1
17 REEVE ALEUTIAN AIRWAYS INC.	\$25,555	\$27,259	\$29,638	0.18%	0.17%	0.16%	(\$1,517)	(\$1,930)	(\$2,714)	\$47
18 SPIRIT AIRLINES INC.	\$53,612	\$62,742	\$80,961	0.00%	0.00%	0.00%	\$2,684	(\$4,818)	\$895	\$1
19 UFS INC.	\$53,220	\$54,557	\$56,160	0.02%	0.02%	0.02%	\$1,840	\$1,740	\$549	\$9
20 VANGUARD AIRLINES	\$36,188	\$92,585	\$81,384	0.08%	0.03%	0.04%	(\$11,382)	(\$24,057)	(\$28,246)	\$29

MEDIUM REGIONALS											
21	CASINO EXPRESS [TEM ENTERPRISES]	\$15,946	\$16,311	\$19,002	0.06%	0.06%	0.05%	(\$1,647)	(\$309)	(\$2,655)	\$10
22	EASTWIND AIRLINES	\$2,821	\$18,009	\$24,344	0.55%	0.09%	0.06%	(\$2,711)	(\$5,051)	(\$6,557)	\$16
23	SIERRA PACIFIC AIRLINES	\$6,500	\$9,023	\$6,584	0.02%	0.02%	0.02%	(\$198)	\$835	(\$781)	\$1
24	SUN PACIFIC INTL	\$21,660	\$13,630	\$24,788	0.01%	0.01%	0.01%	(\$3,749)	(\$722)	\$871	\$1
SMALL REGIONALS											
25	AIR MIDWEST	\$31,073	\$33,714	\$33,776	0.10%	0.10%	0.10%	\$824	\$754	\$1,113	\$32
26	ALLEGHENY COMMUTER	\$196,107	\$212,776	\$213,168	0.03%	0.03%	0.03%	\$26,832	\$24,551	\$36,250	\$67
27	ASTRAL AVIATION INC.	\$33,403	\$36,242	\$36,309	0.00%	0.00%	0.00%	\$1,733	\$1,586	\$2,341	\$1
28	ATLANTIC COAST AIRLINES	\$158,919	\$156,968	\$182,484	0.00%	0.00%	0.00%	\$25,136	\$12,902	\$19,158	\$1
29	BIG SKY AIRLINES	\$5,149	\$5,022	\$4,871	0.26%	0.27%	0.28%	\$53	\$4	\$198	\$14
30	CCAIR INC.	\$63,039	\$66,233	\$67,092	0.18%	0.17%	0.17%	\$362	\$96	\$520	\$114
31	CHAMPLAIN ENT	\$64,777	\$70,283	\$70,413	0.09%	0.08%	0.08%	(\$2,287)	(\$2,093)	(\$3,090)	\$58
32	CHAUTAUQUA AIRLINES	\$41,512	\$45,041	\$45,124	0.15%	0.14%	0.14%	\$1,313	\$1,201	\$1,774	\$64
33	CHICAGO EXPRESS AIRLINES	\$8,801	\$9,549	\$9,567	0.02%	0.02%	0.02%	(\$2,152)	(\$1,969)	(\$2,907)	\$1
34	COLGAN AIRWAYS CORP.	\$11,339	\$12,303	\$12,325	0.06%	0.06%	0.06%	\$70	\$64	\$95	\$7
35	CORPORATE EXPRESS	Didn't operate	Didn't operate	\$84,559	N/A	N/A	0.00%	Didn't operate	Didn't operate	\$9,537	\$1
36	ERA AVIATION INC.	\$91,348	\$99,113	\$99,295	0.00%	0.00%	0.00%	(\$8,757)	(\$8,013)	(\$11,831)	\$1
37	GREAT LAKES AVIATION LTD	\$84,196	\$109,670	\$83,790	0.60%	0.46%	0.61%	\$2,687	\$12,823	\$18,271	\$507
38	GULFSTREAM INTERNATIONAL AIRLINES	\$25,380	\$27,537	\$27,588	0.01%	0.01%	0.01%	(\$1,232)	(\$1,127)	(\$1,664)	\$1
39	PARADISE ISLAND AIR	\$18,368	\$19,929	\$19,966	0.01%	0.01%	0.01%	(\$1,164)	(\$1,065)	(\$1,573)	\$1
40	WEST AIR COMMUTER AIRLINES	\$123,199	\$133,671	\$133,917	0.07%	0.07%	0.07%	\$5,923	\$5,420	\$8,002	\$87
41	WINGS WEST AIRLINES	\$174,217	\$189,025	\$189,374	0.01%	0.01%	0.01%	(\$2,993)	(\$2,739)	(\$4,044)	\$15

Note: All figures in italics are estimates.



**TABLE B-5 - ANALYSIS OF SIGNIFICANT COST IMPACT: ALTERNATIVES 1 - 5**  
(1997 Dollars, 10 Years)

Air Carrier	1% of 1997 Annual Median Revenues for Small Entities Impacted by NPRM	Annualized Costs of Alternatives					Significant Econ. Impact? (Yes = Y or No = N)				
		Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
		Status Quo	No Test Monitor	No Amend. Approval	No TIP	NPRM					
NATIONALS:											
AIR WISCONSIN	\$809,610	\$0	\$2,862	\$2,862	\$2,862	\$2,862	N	N	N	N	N
BUSINESS EXPRESS INC.	\$809,610	\$0	\$11,720	\$8,105	\$8,591	\$13,201	N	N	N	N	N
EXECUTIVE AIRLINES	\$809,610	\$0	\$61,117	\$51,653	\$36,579	\$66,939	N	N	N	N	N
MESA AIRLINES	\$809,610	\$0	\$340,360	\$259,973	\$245,657	\$389,899	N	N	N	N	N
MIDWAY AIRLINES CORP.	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
RENO AIR	\$809,610	\$0	\$47,074	\$38,728	\$39,540	\$51,466	N	N	N	N	N
SHUTTLE INC. [USAIRWAYS INC.]	\$809,610	\$0	\$31,078	\$27,463	\$15,107	\$32,559	N	N	N	N	N
SUN COUNTRY AIRLINES	\$809,610	\$0	\$43,069	\$33,605	\$43,880	\$48,891	N	N	N	N	N
TRANS STATES AIRLINES	\$809,610	\$0	\$159,140	\$122,405	\$114,945	\$180,998	N	N	N	N	N
WORLD AIRWAYS	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
LARGE REGIONALS:											
AIR TRAN AIRWAYS	\$809,610	\$0	\$27,040	\$22,309	\$29,951	\$29,951	N	N	N	N	N
EXPRESS ONE INTERNATIONAL INC.	\$809,610	\$0	\$9,010	\$5,395	\$10,491	\$10,491	N	N	N	N	N
FRONTIER AIRLINES	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
MESABA AVIATION INC.	\$809,610	\$0	\$90,512	\$63,239	\$92,309	\$106,548	N	N	N	N	N
MIAMI AIR INTERNATIONAL	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
NORTH AMERICAN AIRLINES	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
REEVE ALEUTIAN AIRWAYS INC.	\$809,610	\$0	\$41,149	\$31,685	\$31,995	\$46,971	N	N	N	N	N
SPIRIT AIRLINES INC.	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
UFS INC.	\$809,610	\$0	\$7,110	\$3,495	\$8,591	\$8,591	N	N	N	N	N
VANGUARD AIRLINES	\$809,610	\$0	\$25,792	\$21,061	\$23,176	\$28,703	N	N	N	N	N

<b>MEDIUM REGIONALS:</b>											
CASINO EXPRESS [TEM ENTERPRISES]	\$809,610	\$0	\$8,515	\$4,900	\$9,996	\$9,996	N	N	N	N	N
EASTWIND AIRLINES	\$809,610	\$0	\$14,042	\$10,427	\$9,996	\$15,523	N	N	N	N	N
SIERRA PACIFIC AIRLINES	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
SUN PACIFIC INTL	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
<b>SMALL REGIONALS:</b>											
AIR MIDWEST	\$809,610	\$0	\$29,565	\$24,834	\$32,476	\$32,476	N	N	N	N	N
ALLEGHENY COMMUTER	\$809,610	\$0	\$59,780	\$46,703	\$38,985	\$67,083	N	N	N	N	N
ASTRAL AVIATION INC.	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
ATLANTIC COAST AIRLINES	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
BIG SKY AIRLINES	\$809,610	\$0	\$12,121	\$8,506	\$8,591	\$13,602	N	N	N	N	N
CCAIR INC.	\$809,610	\$0	\$100,554	\$78,013	\$67,340	\$113,679	N	N	N	N	N
CHAMPLAIN ENT	\$809,610	\$0	\$51,084	\$38,007	\$39,409	\$58,387	N	N	N	N	N
CHAUTAUQUA AIRLINES	\$809,610	\$0	\$55,462	\$41,266	\$45,217	\$64,195	N	N	N	N	N
CHICAGO EXPRESS AIRLINES	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
COLGAN AIRWAYS CORP.	\$809,610	\$0	\$7,016	\$7,016	\$1,489	\$7,016	N	N	N	N	N
CORPORATE EXPRESS	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
ERA AVIATION INC.	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
GREAT LAKES AVIATION LTD	\$809,610	\$0	\$435,858	\$318,684	\$347,038	\$507,204	N	N	N	N	N
GULFSTREAM INTERNATIONAL AIRLINES	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
PARADISE ISLAND AIR	\$809,610	\$0	\$1,489	\$1,489	\$1,489	\$1,489	N	N	N	N	N
WEST AIR COMMUTER AIRLINES	\$809,610	\$0	\$78,615	\$64,419	\$43,379	\$87,348	N	N	N	N	N
WINGS WEST AIRLINES	\$809,610	\$0	\$13,526	\$9,911	\$9,996	\$15,007	N	N	N	N	N
<b>10-Year incremental Costs by Alternative</b>		\$0	\$17,313,612	\$13,347,712	\$13,856,452	\$19,996,832					
<b>10-Year incremental PV Costs by Alternative</b>		\$0	\$12,582,331	\$9,642,971	\$9,691,872	\$14,313,039					

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## **APPENDIX C - Small Screening Companies**

TABLE C-1  
SUMMARY OF INITIAL DETERMINATION OF ECONOMIC IMPACT  
(1997 Dollars, Discounted, 10 Years, 7%)

Screening Company		Number of Employees	1% of 1997 Median Impacted Small Business Annual Revenues	Annualized Cost of Compliance <sup>1</sup>	Significant Economic Impact? Y/N
No.					
1	A/P Aviation Services	1,400	\$296,830	\$24,865	N
2	Air Carrier Services	9	\$296,830	\$21,111	N
3	Air Wisconsin Corporation	<1,500	\$296,830	\$23,300	N
4	Airavada	5	\$296,830	\$21,562	N
5	Airline Security	5	\$296,830	\$21,111	N
6	American Investigations	180	\$296,830	\$83,041	N
7	Animas Ground Services	<1,500	\$296,830	\$21,855	N
8	Aviation Safeguards	997	\$296,830	\$49,238	N
9	BISMAN Security	300	\$296,830	\$49,995	N
10	CCAir Inc.	640	\$296,830	\$21,042	N
11	Chautauqua Airlines	510	\$296,830	\$44,408	N
12	Coastal International Security	540	\$296,830	\$23,553	N
13	Commute Air Personnel	380	\$296,830	\$22,176	N
14	Day Detectives	1,100	\$296,830	\$75,409	N
15	GLH Airport Police	500	\$296,830	\$28,174	N
16	Great Lakes Aviation Ltd.	1,300	\$296,830	\$65,728	N
17	Harbor Airlines	100	\$296,830	\$91,721	N
18	Haynes Security	<1,500	\$296,830	\$21,208	N
19	Maxaero	485	\$296,830	\$21,999	N
20	Metro Air Services	8	\$296,830	\$20,836	N
21	Montrose Airport	23	\$296,830	\$25,229	N
22	NCA Screening and Security	20	\$296,830	\$21,829	N
23	Netherlin	7	\$296,830	\$46,831	N
24	Northwest Airlin	200	\$296,830	\$21,111	N
25	Olympic Security Services	500	\$296,830	\$66,764	N
26	Operational Excellence Training, Inc.	<1,500	\$296,830	\$21,782	N
27	Pacific Airport Services	34	\$296,830	\$22,148	N
28	Parker Security	70	\$296,830	\$22,517	N
29	Ponce Airline Service	134	\$296,830	\$24,967	N
30	RAI	1,000	\$296,830	\$22,321	N
31	Reeve Aleutian Airways, Inc.	315	\$296,830	\$24,459	N
32	Reno Air	120	\$296,830	\$24,651	N
33	Trans States Airlines, Inc.	1,000	\$296,830	\$50,235	N
34	United Safeguard	464	\$296,830	\$47,769	N
35	WestAir Commuter Airlines	1,000	\$296,830	\$25,972	N
36	World Service Co.	167	\$296,830	\$20,912	N
37	Worldwide Security Associates Inc.	1,500	\$296,830	\$55,817	N
38	WSC Enterprises	22	\$296,830	\$22,547	N

<sup>1</sup>Annualized using a capital recovery factor of 0.14785, over 10 years, using a 7 percent rate of interest.

**TABLE C-2**  
**SUMMARY OF FINANCIAL PROFILE OF SCREENING COMPANY SMALL ENTITIES: Net Income (Profits and Losses)**

Screening Company		Domestic Operations: Net Income or (Loss)* 1994, \$000	Domestic Operations: Net Income or (Loss)* 1995, \$000	Domestic Operations: Net Income or (Loss)* 1996, \$000	Domestic Operations: Net Income or (Loss)* 1997, \$000	10-Year Annualized Cost of Compliance (1997, \$000)	Significant Economic Impact? Y/N	Likelihood of Business Closure Due to Compliance with NPRM
No.	Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H
1	A/P Aviation Services	\$4	\$6	\$8	\$113	\$25	N	Low
3	Air Wisconsin Corporation	\$2,476	\$3,124	\$3,790	\$3,669	\$23	N	Low
6	American Investigations	\$6	\$17	\$49	\$141	\$22	N	Low
8	Aviation Safeguards	\$276	(\$370)	\$497	(\$666)	\$83	N	Moderate
10	CCAir Inc.	\$4,756	\$362	\$96	\$520	\$49	N	Low
11	Chautauqua Airlines	(\$759,918)	\$1,313	\$1,201	\$1,774	\$50	N	Low
12	Coastal International Security	(\$58)	(\$82)	(\$108)	(\$127)	\$21	N	Moderate
13	Commute Air Personnel	(\$7,832)	(\$3,384)	\$1,064	\$4,463	\$44	N	Low
14	Day Detectives	\$544	\$2,401	\$4,257	\$5,026	\$24	N	Low
15	GLH Airport Police	(\$779)	(\$278)	(\$367)	(\$430)	\$22	N	Moderate
16	Great Lakes Aviation Ltd.	\$404	\$2,687	\$12,823	\$18,271	\$75	N	Low
18	Haynes Security	\$114	\$151	\$199	\$233	\$66	N	Low
25	Olympic Security Services	\$61	\$86	\$113	\$133	\$67	N	Low
31	Reeve Aleutian Airways, Inc.	(\$1,967)	(\$1,517)	(\$1,930)	(\$2,714)	\$24	N	Moderate
32	Reno Air	(\$13,993)	\$1,818	\$2,031	(\$11,628)	\$25	N	Moderate
33	Trans States Airlines, Inc.	\$18,502	\$11,668	\$25,717	\$24,690	\$50	N	Low
34	United Safeguard	\$80	\$107	\$55	\$62	\$48	N	Low
35	WestAir Commuter Airlines	\$3,713	\$5,923	\$5,420	\$8,002	\$26	N	Low
37	Worldwide Security Associates Inc.	\$13	\$18	\$24	\$28	\$56	N	Low

\* Financial information was obtained from the Air Carrier Financial Quarterly for 1994 - 1997 (4th Quarter: December '94 to December '97), Bureau of Transportation Statistics, Office of Airline Information, U.S. Dept. of Transportation, Moody's Transportation Manual, 1996-1998, Dun & Bradstreet - Business Information Report and Value Line.

Note: All figures in italics are estimates. The FAA is only showing data for the 19 screening companies that it has financial data on.

**TABLE C-3 - SUMMARY OF FINANCIAL PROFILE OF SCREENING COMPANY SMALL ENTITIES: Assets, Liabilities, and Financial Strength Ratios**

No.	Screening Company	Current Assets 1994, \$000	Current Liabilities 1994, \$000	Quick Assets 1994, \$000	Current Assets 1995, \$000	Current Liabilities 1995, \$000	Quick Assets 1995, \$000	Current Assets 1996, \$000	Current Liabilities 1996, \$000	Quick Assets 1996, \$000	Current Assets 1997, \$000	Current Liabilities 1997, \$000	Quick Assets 1997, \$000
1	A/P Aviation Services	\$2,216	\$708	\$1,360	\$2,658	\$914	\$1,631	\$3,189	\$1,179	\$1,957	\$3,408	\$1,622	\$2,348
	Net Working Capital	\$1,508			\$1,744			\$2,010			\$1,786		
	Current Ratio		3.13			2.91			2.70			2.10	
	Quick Ratio			1.92			1.79			1.66			1.45
3	Air Wisconsin Corporation	\$13,376	\$9,966	\$6,091	\$16,126	\$12,663	\$8,935	\$15,693	\$12,624	\$7,893	\$14,736	\$12,601	\$6,847
	Net Working Capital	\$3,410			\$3,463			\$3,069			\$2,135		
	Current Ratio		1.34			1.27			1.24			1.17	
	Quick Ratio			0.61			0.71			0.63			0.54
6	American Investigations	\$46	\$59	\$11	\$79	\$55	\$34	\$136	\$51	\$108	\$239	\$47	\$190
	Net Working Capital	(\$13)			\$24			\$85			\$192		
	Current Ratio		0.77			1.44			2.67			5.06	
	Quick Ratio			0.18			0.62			2.12			4.02
8	Aviation Safeguards	\$14,285	\$14,306	\$9,841	\$14,285	\$14,034	\$9,841	\$14,285	\$13,768	\$9,841	\$14,285	\$13,506	\$9,841
	Net Working Capital	(\$21)			\$251			\$518			\$771		
	Current Ratio		1.00			1.02			1.04			1.06	
	Quick Ratio			0.69			0.70			0.71			0.73
10	CCAir Inc.	\$9,713	\$10,272	\$57	\$14,154	\$15,525	\$11,047	\$14,165	\$15,525	\$10,997	\$13,458	\$17,079	\$10,534
	Net Working Capital	(\$559)			(\$1,371)			(\$1,360)			(\$3,621)		
	Current Ratio		0.95			0.91			0.91			0.79	
	Quick Ratio			0.01			0.71			0.71			0.62
11	Chautauqua Airlines	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
12	Coastal International Security	\$1,062	\$890	\$998	\$1,274	\$1,148	\$1,197	\$1,529	\$1,481	\$1,436	\$1,834	\$1,911	\$1,723
	Net Working Capital	\$172			\$126			\$48			(\$77)		
	Current Ratio		1.19			1.11			1.03			0.96	
	Quick Ratio			1.12			1.04			0.97			0.90
13	Commute Air Personnel	\$16,051	\$16,116	\$12,468	\$18,089	\$15,983	\$14,051	\$20,126	\$15,849	\$15,634	\$20,641	\$17,337	\$16,034
	Net Working Capital	(\$65)			\$2,106			\$4,277			\$3,304		
	Current Ratio		1.00			1.13			1.27			1.19	
	Quick Ratio			0.77			0.88			0.99			0.92

14	Day Detectives	\$1,360	\$481	\$1,360	\$1,650	\$502	\$1,650	\$2,315	\$417	\$2,315	\$2,979	\$331	\$2,979
	Net Working Capital	\$879			\$1,148			\$1,898			\$2,648		
	Current Ratio		2.83			3.29			5.56			9.00	
	Quick Ratio			2.83			3.29			5.56			9.00
15	GLH Airport Police	\$83,547	\$14,467	\$52,237	\$90,965	\$18,856	\$62,666	\$109,126	\$24,327	\$75,177	\$130,912	\$31,385	\$90,186
	Net Working Capital	\$69,080			\$72,109			\$84,799			\$99,527		
	Current Ratio		5.78			4.82			4.49			4.17	
	Quick Ratio			3.61			3.32			3.09			2.87
16	Great Lakes Aviation Ltd.	\$24,473	\$13,858	\$4,851	\$27,040	\$14,901	\$15,264	\$28,872	\$28,270	\$6,676	\$20,832	\$26,427	\$8,031
	Net Working Capital	\$10,615			\$12,139			\$602			(\$5,595)		
	Current Ratio		1.77			1.81			1.02			0.79	
	Quick Ratio			0.35			1.02			0.24			0.30
18	Haynes Security	\$1,199	\$559	\$1,168	\$1,255	\$705	\$1,223	\$1,314	\$889	\$1,281	\$1,620	\$696	\$1,579
	Net Working Capital	\$640			\$550			\$425			\$924		
	Current Ratio		2.14			1.78			1.48			2.33	
	Quick Ratio			2.09			1.74			1.44			2.27
25	Olympic Security Services	\$587	\$360	\$404	\$704	\$464	\$485	\$845	\$599	\$582	\$1,013	\$773	\$698
	Net Working Capital	\$227			\$240			\$246			\$240		
	Current Ratio		1.63			1.52			1.41			1.31	
	Quick Ratio			1.12			1.04			0.97			0.90
31	Reeve Aleutian Airways, Inc.	\$6,351	\$5,076	\$3,032	\$10,503	\$10,093	\$9,826	\$4,920	\$6,618	\$2,638	\$6,078	\$9,653	\$3,668
	Net Working Capital	\$1,275			\$410			(\$1,698)			(\$3,575)		
	Current Ratio		1.25			1.04			0.74			0.63	
	Quick Ratio			0.60			0.97			0.40			0.38
32	Reno Air	\$33,661	\$47,826	\$25,103	\$72,064	\$53,807	\$57,151	\$56,078	\$67,015	\$37,375	\$86,678	\$80,397	\$54,485
	Net Working Capital	(\$14,165)			\$18,257			(\$10,937)			\$6,281		
	Current Ratio		0.70			1.34			0.84			1.08	
	Quick Ratio			0.52			1.06			0.56			0.68
33	Trans States Airlines, Inc.	\$40,773	\$21,135	\$35,745	\$43,116	\$22,348	\$38,850	\$51,545	\$26,077	\$46,672	\$44,490	\$25,357	\$39,142
	Net Working Capital	\$19,638			\$20,768			\$25,468			\$19,133		
	Current Ratio		1.93			1.93			1.98			1.75	
	Quick Ratio			1.69			1.74			1.79			1.54
34	United Safeguard	\$1,039	\$711	\$976	\$1,170	\$289	\$1,083	\$1,286	\$375	\$1,202	\$1,427	\$333	\$1,334
	Net Working Capital	\$328			\$881			\$911			\$1,094		
	Current Ratio		1.46			4.05			3.43			4.28	
	Quick Ratio			1.37			3.75			3.21			4.00

35	WestAir Commuter Airlines	\$14,786	\$13,209	\$5,487	\$17,322	\$13,327	\$12,523	\$17,790	\$16,677	\$10,366	\$19,470	\$17,105	\$14,285
	Net Working Capital	\$1,577			\$3,995			\$1,114			\$2,365		
	Current Ratio		1.12			1.30			1.07			1.14	
	Quick Ratio			0.42			0.94			0.62			0.84
37	Worldwide Security Associates Inc.	\$1,565	\$1,548	\$1,409	\$1,877	\$1,857	\$1,817	\$2,252	\$2,396	\$2,180	\$2,702	\$3,091	\$2,615
	Net Working Capital	\$17			\$20			(\$144)			(\$389)		
	Current Ratio		1.01			1.01			0.94			0.87	
	Quick Ratio			0.91			0.98			0.91			0.85



TABLE C-4 SUMMARY OF FINANCIAL PROFILE OF SCREENING COMPANY SMALL ENTITIES: Total Operating Revenues and Net Income (Profits and Losses)											
		***Total Operating Revenues***			Percentage of Compliance Costs of Total Revenue - Scr. Co. & Year			"Net Income"*			10-Year Annualized Cost of Compliance
		Operations: Total Operating Revenues	Operations: Total Operating Revenues	Operations: Total Operating Revenues	Percentage of Costs of Total Revenues	Percentage of Costs of Total Revenues	Percentage of Costs of Total Revenues	Operations: Net Income	Operations: Net Income	Operations: Net Income	
		1995, \$000	1996, \$000	1997, \$000	Col. J/Col. A	Col. J/Col. B	Col. J/Col. C	(Loss)	(Loss)	(Loss)	
Screening Company		Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	
No.											
1	A/P Aviation Services	\$4,296	\$5,667	\$5,808	0.58%	0.44%	0.43%	\$6	\$8	\$113	\$25
3	Air Wisconsin Corporation	\$120,079	\$132,442	\$140,892	0.02%	0.02%	0.02%	\$3,124	\$3,790	\$3,669	\$23
6	American Investigations	\$675	\$1,162	\$2,045	3.19%	1.86%	1.05%	\$17	\$49	\$141	\$22
8	Aviation Safeguards	\$59,053	\$55,064	\$51,344	0.14%	0.15%	0.16%	(\$370)	\$497	(\$666)	\$83
10	CCA Air Inc.	\$63,039	\$66,233	\$67,092	0.08%	0.07%	0.07%	\$362	\$96	\$520	\$49
11	Chautauqua Airlines	\$41,512	\$45,041	\$45,124	0.12%	0.11%	0.11%	\$1,313	\$1,201	\$1,774	\$50
12	Coastal International Security	\$8,200	\$10,374	\$12,929	0.26%	0.20%	0.16%	(\$82)	(\$108)	(\$127)	\$21
13	Commute Air Personnel	\$68,182	\$79,831	\$77,803	0.07%	0.06%	0.06%	(\$3,384)	\$1,064	\$4,463	\$44
14	Day Detectives	\$8,088	\$11,346	\$14,603	0.29%	0.21%	0.16%	\$2,401	\$4,257	\$5,026	\$24
15	GLH Airport Police	\$18,788	\$23,770	\$29,623	0.12%	0.09%	0.07%	(\$278)	(\$367)	(\$430)	\$22
16	Great Lakes Aviation Ltd.	\$84,196	\$109,670	\$83,790	0.09%	0.07%	0.09%	\$2,687	\$12,823	\$18,271	\$75
18	Haynes Security	\$9,297	\$10,335	\$12,742	0.71%	0.64%	0.52%	\$151	\$199	\$233	\$66
25	Olympic Security Services	\$2,953	\$3,736	\$4,656	2.26%	1.79%	1.43%	\$86	\$113	\$133	\$67
31	Reeve Aleutian Airways, Inc.	\$25,555	\$27,259	\$29,638	0.10%	0.09%	0.08%	(\$1,517)	(\$1,930)	(\$2,714)	\$24
32	Reno Air	\$259,148	\$351,188	\$387,836	0.01%	0.01%	0.01%	\$1,818	\$2,031	(\$11,628)	\$25
33	Trans States Airlines, Inc.	\$141,823	\$189,871	\$208,365	0.04%	0.03%	0.02%	\$11,668	\$25,717	\$24,690	\$50
34	United Safeguard	\$5,299	\$5,633	\$6,253	0.90%	0.85%	0.76%	\$107	\$55	\$62	\$48
35	WestAir Commuter Airlines	\$123,199	\$133,671	\$133,917	0.02%	0.02%	0.02%	\$5,923	\$5,420	\$8,002	\$26
37	Worldwide Security Associates Inc.	\$10,573	\$13,377	\$16,672	0.53%	0.42%	0.33%	\$18	\$24	\$28	\$56

Note: All figures in italics are estimates. The FAA is only showing data for the 19 screening companies that it has financial data on.

**TABLE C-5 - ANALYSIS OF SIGNIFICANT COST IMPACT: ALTERNATIVES 1- 5**  
(1997 Dollars, 10 Years)

Screening Company	1% of 1997 Annual Median Revenues for Small Entities Impacted by NPRM	Annualized Cost of Alternatives					Significant Econ. Impact? (Yes = Y or No = N)				
		Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5					
		Status Quo	No Test Monitor	No Supervisor Approval	No Amendment Approval	NPRM	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
A/P Aviation Services	\$296,830	\$0	\$24,657	\$24,450	\$24,659	\$24,865	N	N	N	N	N
Air Carrier Services	\$296,830	\$0	\$20,903	\$21,111	\$20,905	\$21,111	N	N	N	N	N
Air Wisconsin Corporation	\$296,830	\$0	\$22,676	\$22,964	\$22,681	\$23,300	N	N	N	N	N
Airavada	\$296,830	\$0	\$20,903	\$21,111	\$20,905	\$21,111	N	N	N	N	N
Airline Security	\$296,830	\$0	\$24,241	\$25,229	\$24,198	\$25,229	N	N	N	N	N
American Investigations	\$296,830	\$0	\$21,354	\$21,284	\$21,356	\$21,562	N	N	N	N	N
Animas Ground Services	\$296,830	\$0	\$20,903	\$21,111	\$20,905	\$21,111	N	N	N	N	N
Aviation Safeguards	\$296,830	\$0	\$80,233	\$80,045	\$80,073	\$83,041	N	N	N	N	N
BISMAN Security	\$296,830	\$0	\$21,439	\$21,636	\$21,442	\$21,855	N	N	N	N	N
CCAir Inc.	\$296,830	\$0	\$47,418	\$47,948	\$47,382	\$49,238	N	N	N	N	N
Chautauqua Airlines	\$296,830	\$0	\$49,007	\$47,616	\$48,964	\$49,995	N	N	N	N	N
Coastal International Security	\$296,830	\$0	\$20,834	\$21,042	\$20,836	\$21,042	N	N	N	N	N
Commute Air Personnel	\$296,830	\$0	\$43,420	\$43,555	\$43,377	\$44,408	N	N	N	N	N
Day Detectives	\$296,830	\$0	\$23,137	\$22,844	\$23,140	\$23,553	N	N	N	N	N
GLH Airport Police	\$296,830	\$0	\$21,968	\$21,644	\$21,970	\$22,176	N	N	N	N	N
Great Lakes Aviation Ltd.	\$296,830	\$0	\$67,193	\$74,439	\$66,952	\$75,409	N	N	N	N	N
Harbor Airlines	\$296,830	\$0	\$26,978	\$27,263	\$26,936	\$28,174	N	N	N	N	N
Haynes Security	\$296,830	\$0	\$65,104	\$64,024	\$65,109	\$65,728	N	N	N	N	N
Maxaero	\$296,830	\$0	\$88,133	\$87,254	\$88,008	\$91,721	N	N	N	N	N
Metro Air Services	\$296,830	\$0	\$21,000	\$20,989	\$21,002	\$21,208	N	N	N	N	N
Montrose Airport	\$296,830	\$0	\$21,583	\$21,780	\$21,586	\$21,999	N	N	N	N	N

NCA Screening and Security	\$296,830	\$0	\$20,628	\$20,836	\$20,630	\$20,836	N	N	N	N	N	N
Netherlin	\$296,830	\$0	\$21,621	\$21,829	\$21,623	\$21,829	N	N	N	N	N	N
Northwest Airlink	\$296,830	\$0	\$45,635	\$45,861	\$45,593	\$46,831	N	N	N	N	N	N
Olympic Security Services	\$296,830	\$0	\$64,164	\$63,611	\$64,082	\$66,764	N	N	N	N	N	N
Operational Excellence Training, Inc.	\$296,830	\$0	\$21,574	\$21,563	\$21,576	\$21,782	N	N	N	N	N	N
Pacific Airport Services	\$296,830	\$0	\$21,940	\$21,812	\$21,942	\$22,148	N	N	N	N	N	N
Parker Security	\$296,830	\$0	\$22,101	\$22,181	\$22,104	\$22,517	N	N	N	N	N	N
Ponce Airline Service	\$296,830	\$0	\$24,551	\$24,552	\$24,554	\$24,967	N	N	N	N	N	N
RAI	\$296,830	\$0	\$22,113	\$21,789	\$22,115	\$22,321	N	N	N	N	N	N
Reeve Aleutian Airways, Inc.	\$296,830	\$0	\$23,679	\$23,927	\$23,634	\$24,459	N	N	N	N	N	N
Reno Air	\$296,830	\$0	\$24,443	\$24,651	\$24,445	\$24,651	N	N	N	N	N	N
Trans States Airlines, Inc.	\$296,830	\$0	\$48,259	\$49,526	\$48,172	\$50,235	N	N	N	N	N	N
United Safeguard	\$296,830	\$0	\$46,989	\$46,858	\$46,944	\$47,769	N	N	N	N	N	N
WestAir Commuter Airlines	\$296,830	\$0	\$25,192	\$25,061	\$25,147	\$25,972	N	N	N	N	N	N
World Service Co.	\$296,830	\$0	\$20,704	\$20,912	\$20,706	\$20,912	N	N	N	N	N	N
Worldwide Security Associates Inc.	\$296,830	\$0	\$55,193	\$53,735	\$55,198	\$55,817	N	N	N	N	N	N
WSC Enterprises	\$296,830	\$0	\$22,339	\$22,547	\$22,341	\$22,547	N	N	N	N	N	N
<b>10-Year Incremental Costs by Alternative</b>		\$0	\$12,739,539	\$12,804,386	\$12,730,149	\$13,097,299						
<b>10-Year Incremental PV Costs by Alternative</b>		\$0	\$8,846,398	\$8,892,655	\$8,839,252	\$9,097,684						